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ELEMENTS
OF
MEDICAL JURISPRUDENCE.

BY

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TWELFTH EDITION.

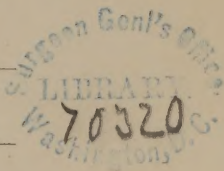
WITH NOTES BY AN ASSOCIATION OF THE FRIENDS OF DRS. BECK.

THE WHOLE REVISED BY

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VOL. I.



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TO THE
MEDICAL AND LEGAL PROFESSIONS
THROUGHOUT THE UNION,

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TO THE TWELFTH EDITION.

IT is a very great gratification to the friends of Dr. Beck that the edition (eleventh) annotated by them has been taken up in so short a period as two years. Another being called for, the editor has consulted many of his friends as to the additions to be made: these have not been numerous. To the chapter on Mental Alienation, two important cases, decided within the past two years, have been added; to that on Poisons, additions have been made by Professor St. John; and the whole book has been revised, that it may continue to deserve the distinguished favor with which previous editions have been received.

C. R. GILMAN.

NEW YORK, *March*, 1863.

PREFACE

TO THE ELEVENTH EDITION.

AFTER the death of T. ROMEYN BECK, it was ascertained that he had, with characteristic industry, collected a large amount of matter for a new edition of his treatise on Medical Jurisprudence. These materials were by his family placed in my hands, with a request that I would prepare the new edition for the press. Conscious of my own inability to do justice to such a trust, I sought aid from the friends of Dr. Beck. The required assistance was cheerfully rendered, and I was soon enabled to place most of the more important chapters in competent as well as friendly hands. In this way, I hope that the public are assured of a good edition of the book, while the friends of the author have a very welcome opportunity to pay a sincere and well deserved compliment to the memory of a wise and good man.

The names of the gentlemen who united with me in this labor of love and respect are subjoined. I hope the list will serve as a guaranty that something has been done in this edition, if not to elevate the character, at least to add to the usefulness of a

work which at home and abroad has been recognized as an honor to the medical literature of our country.

My own task, besides general supervision, has been to incorporate into the body of the work the materials prepared by Dr. Beck, and to make the changes of which he had indicated the propriety. Some things I have added, some things modified; but I trust that all has been done with due respect to the memory of the dead.

C. R. G.

NEW YORK, *November*, 1859.

COLLABORATORS.

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I am indebted to JOHN C. DALTON, JR., M.D., Professor of Physiology in the College of Physicians and Surgeons, New York, for a valuable paper on the Corpus Luteum.

I have also to acknowledge my obligations to GEORGE SHEA, Esq., counselor-at-law, for valuable suggestions on the purely legal portion of the subject; and to the Hon. MURRAY HOFFMAN, of the New York Superior Court, for favors of the same kind.

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TO THE TENTH EDITION.

THE present edition, although announced, and originally so intended, as a reprint from the last London, has been subsequently carefully revised, and enlarged to the extent of several hundred pages. Numerous and important additions will be found in every chapter; and the whole is again tendered to the medical and legal professions throughout the Union, for their consideration, and, it is hoped, approval.

• AUGUST, 1850.

(x)

PREFACE

TO THE FIFTH EDITION.

IN preparing the present edition of this work for the press, I have found that an amount of labor was required equal to that originally bestowed on it. This has arisen from the numerous and important additions made to the science of medical jurisprudence during the last ten years. It has hence been necessary to revise every chapter, and several, indeed, have been nearly rewritten. I have also added essays on two subjects not previously noticed, viz., Insurance upon Lives, and Medical Evidence. In its present extended, and, as I trust, improved form, I can only ask for it a portion of the favor with which my first efforts were so kindly received.

Besides the numerous printed works, from which I have derived most of my materials, and to which I have always given due credit, I must not omit acknowledging the use of the Manuscript Lectures of the late Professor Stringham and of Dr. William Dunlop. • For the former I am indebted to the kindness of his surviving relatives, M. Hunt and Jos. Stringham, Esquires; and for the latter, as delivered at Edinburgh, to their author.

Drs. Dunlop and Darwall, the successive editors of the

English editions, also enriched the work with numerous and valuable notes. These I have preserved in the present edition, not only for their intrinsic worth, but as a mark of respect and gratitude for their labors.

I have continued to derive much assistance from the New York State Library, and the Libraries of the Western Medical College and the Albany Institute; while many of my legal and medical friends have allowed me the freest access to their private collections.

The chapter on Infanticide, originally contributed by my brother, has been again furnished by him in an enlarged and greatly improved form. I have considered it a bare act of justice, that the author of so important a portion of the work should be associated with me on the title-page.

T. R. B.

ALBANY, *November*, 1835.

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INTRODUCTION.

MEDICAL JURISPRUDENCE, Legal Medicine, or Forensic Medicine, as it is variously termed, is that science which applies the principles and practice of the different branches of medicine to the elucidation of doubtful questions in courts of justice. By some authors, it is used in a more extensive sense, and also comprehends MEDICAL POLICE, or those medical precepts which may prove useful to the legislature or the magistracy. I shall employ it at this time in its restricted meaning.*

Traces of this science are to be found as early as the institution of civil society. Thus, in the Jewish law, indications of it may be observed in the distinction established between mortal wounds and those not so, and in the inquiries prescribed in cases of doubtful virginity. Among the Egyptians, according to Plutarch, it was ordained that no pregnant woman should suffer afflictive punishment; while the Romans, even from the period of Numa, grounded many of their laws on the authority of ancient physicians and philosophers. *Propter auctoritatem doctissimi Hippocratis* is a phrase frequently met with in their decisions;† and the Emperor Adrian, in extending the term of legitimacy from ten months—the period fixed by the Decemvirs—to eleven, was influenced in so doing by the prevailing sentiments of the physiologists of that day.‡ Some detached but striking medico-legal facts are also mentioned by the Roman historians. Thus, the bloody remains of Julius Cæsar, when exposed to public view, were examined by one Antistius, who declared that out of twenty-three wounds which had been received, but one was mortal, and that had penetrated the thorax, between the first and second ribs.

* If a general term be necessary to include both these sciences, I should prefer that used by the Germans, viz., STATE MEDICINE.

† Belloc, p. 6.

‡ Foderé, Introduction, p. 14.

The body of Germanicus was also inspected, and, by indications conformable to the superstitions of the age, it was decided that he had been poisoned.*

The code of Justinian contains many provisions appertaining to this science, which we shall have frequent occasion to quote in the subsequent pages. Some of these, indeed, are incorporated into the laws of almost every civilized country at the present day.

All the laws of the ancients, however, and all the facts drawn from their history, are to be considered as merely the first glimmerings of knowledge on this subject—and knowledge, too, founded on the imperfect diagnostics which medicine afforded at that early period. It was never ordained that physicians should be examined on any trial until after the middle ages, and we are indebted to the Emperor Charles V. of Germany for the first public enactment prescribing it as necessary, and thereby recognizing its value and importance. In the celebrated criminal code which was framed by him at Ratisbon, in 1532, and which is known by the name of the "*Constitutio Criminalis Carolina*," or the Caroline Code, it is ordained that the opinion of medical men shall be formally taken in every case where death has been occasioned by violent means—such as child-murder, poisoning, wounds, hanging, drowning, the procuring of abortion, and the like.†

"The publication of such a code very naturally awakened the attention of the medical profession, and summoned numerous writers from its ranks."‡ It was the first regular commencement and origin of legal medicine, and it required only such an enactment, to apprehend the utility of which it was susceptible.

The kings of France soon became aware of the value of similar institutions. In 1556, Henry II. promulgated a law by virtue of which death was inflicted on the female who should conceal her pregnancy and destroy her offspring.

In 1606, Henry IV. presented letters patent to his first physician, by which he conferred on him the privilege of nominating two surgeons in every city and important town, whose duty it

* Foderé, Introduction, p. 30.

† "George Bishop, of Bamberg, in 1507 proclaimed a penal code, drawn up for his States by Baron Schwartzemberg, in which the necessity of medical evidence in certain cases was recognized." The Caroline Code was founded on this. Dr. Trail, in *Encyclopedia Britannica*, seventh edition, vol. xiv. p. 490.

‡ Paris, *Med. Jurisprudence*, vol. i. p. 10.

should exclusively be to examine all wounded or murdered persons, and to make reports thereon; and in 1667, Louis XIV. formally declared that no report should be valid unless it had received the sanction of at least one of these surgeons.* At a subsequent period (1692) physicians were by law associated with surgeons in these examinations.

The writers who have investigated the science of medical jurisprudence are numerous. Some have noticed it as a system, while others have examined detached parts. I shall content myself with mentioning the more distinguished.

Fortunatus Fidelis is probably the earliest writer on the science. He was an Italian, and his work, "*De Relationibus Medicorum*," was published in 1598, at Palermo.† Paulus Zacchias soon followed him in his great work, "*Questiones Medico-Legales*," which appeared at Rome between 1621 and 1635.‡ This distinguished man rose to great eminence in his profession, and was physician to Pope Innocent X. He died in 1659, in the seventy-fifth year of his age. His treatise on legal medicine, although partaking of the superstition of the age in which he lived, is still a most valuable record of facts, and a permanent monument of the talents of the author.

In Germany, Bohn was among the earliest writers, but his treatise is confined to a consideration of wounds. The "*Pandects*" of Valentini, which appeared in 1702, and which were shortly followed by his "*Novellæ*," form a very complete and extensive retrospect of the opinions and decisions of preceding writers on legal medicine. They consist, indeed, of medico-legal cases, and the consultations of distinguished physicians, and of medical and legal faculties on them. Alberti, Zittman, Teichmeyer, Fazellius, Goellicke, Hebenstreit, Plenck, Daniel, Sikora, Ludwig, and Metzger, are also German authors of eminence in this branch of learning. But one of the most valuable and comprehensive collections that has ever appeared, is that edited by Schlegel. It consists of upwards of forty dissertations on various parts of medical jurisprudence, written by his countrymen at different periods during the eighteenth

* Foderé, vol. i., Introduction, p. 32.

† Dr. Cummin considers Condronchus as an earlier writer on legal medicine than Fidelis. He published in 1597, at Frankfort, his tract, *Methodus Testificandi*. According to Dr. Cummin, Fidelis published in 1602. (London Med. Gazette, vol. xix. p. 3.)

‡ Life of Zacchias, prefixed to his *Questiones Medico-Legales*.

century, and is alike honorable to the national character, and the individuals whose investigations appear in it.

In our own days, the indefatigable industry and great learning of the Germans have furnished important contributions to the science. From a host of names, I will only select those of Henke, Bernt, Gmelin, Emmert, Jaeger, Kopp, Hecker, Hoffbauer, Remer, and Wagner.

Foderé, in his sketch of the history of the science in France, considered Ambrose Paré as the earliest writer on it in that country. In such estimation were his works held in his native country, that for more than a century they formed the sole guide of the French surgeon. To him succeeded Gendri in 1650, Blegni in 1684, and Deveaux in 1693 and 1701. Their works were particularly intended for the benefit of surgeons, from whom, as I have already stated, the examiners in medico-legal cases were selected.

Louis is the first who promulgated a just idea of the science to his countrymen. He investigated several important points with great ability—such as the certainty of the signs of death, protracted gestation, drowning, and the proofs that distinguish hanging through suicide, from hanging as an act of murder. His consultations also in various cases, which are preserved in the “*Causes Célèbres*,” abound in various and instructive learning. Some of his opinions gave rise to animated discussions, and thus excited public attention to these subjects generally. Winslow, Lorry, Lafosse, Chaussier, also deserve notice among the French writers; while toward the conclusion of the eighteenth century, Professor Mahon, with several others, published, in the “*Encyclopedie Methodique*,” copious dissertations on medical jurisprudence.*

In 1796, Foderé published the first edition of his work in three octavo volumes, under the title of “*Les lois éclairées par les sciences physiques, ou Traité de médecine légale et d’hygiène publique*.” This learned physician was a resident of Strasburg, and the author of several other treatises of deserved reputation. In 1807, the system of Mahon, late Professor of Legal Medicine and the History of Medicine in the School of Medicine at Paris, appeared, with notes by M. Fautrel; and about the same time, Belloc, a surgeon at Agen, published his sensible and useful treatise in one volume. Marc, in 1808, presented a translation from the

* Foderé, vol. i., Introduction, p. 37, etc.

German, of the manual of Rose, on Medico-Legal Dissection, and enriched it with valuable notes, besides adding two most instructive dissertations—one on the *docimasia pulmonum*, and the other on *death by drowning*. In 1812, Ballard published a translation, also from the German, of Metzger's Principles of Legal Medicine. This work is peculiarly valuable for the great learning displayed in its notes, and the opportunity thus afforded of becoming acquainted with the sentiments of authors whose writings are either inaccessible, or in some degree antiquated.

After bestowing great labor during several years, a second edition of his treatise was published by Foderé, in 1813. It was now extended to six volumes—four on legal medicine, and two on medical police, and was undoubtedly, at the time of its publication, the most valuable systematic work on the science in the French language.*

After a few years, there appeared in Paris one of the most original publications the present age has yet afforded. I refer to the system of Toxicology by Orfila, a Spaniard by birth, but naturalized and permanently resident in France. This is copious, beyond all former treatises, in original experiments, and it has done much to increase our knowledge of the action and the tests of individual poisons. The career of Orfila, so splendidly commenced, has been successfully and ardently pursued; and his lectures on legal medicine, his work on judicial disinterments, and his numerous essays on detached subjects, have all served to improve and advance his favorite science.

In 1821, Professor Capuron published on legal medicine, so far as it relates to midwifery. Briand, Biessy, Esquirol, Georget, Falret, Marc, and many others, have either written regular treatises, or published on some one or other of the subjects included in the range of legal medicine. The most valuable French work, however, of the present day, is the "*Annales d'Hygiène et de Médecine Légale*." This is issued quarterly, and is conducted by some of the ablest medical men in the nation. In 1836, Dr. Devergie published an elaborate and able treatise on legal medicine. It is peculiarly interesting on the subject of persons found dead.

The first work, professing to treat of medical jurisprudence, that appeared in England, was the production of Dr. Farr. This

* Professor Foderé died at Strasburg, in February, 1835, in the seventy-second year of his age.

was in 1788, and in his preface he mentions that it is derived from Fazelius' *Elements of Forensic Medicine*. It is brief and imperfect, extending only to one hundred and forty duodecimo pages. It arrived at a second edition in 1814. The *Medical Ethics* of Percival contain some useful facts; and Dr. William Hunter, in his essay "On the Uncertainty of the Signs of Murder in the Case of Bastard Children," examined a most important and leading subject in medical jurisprudence. In 1815, Dr. Bartley, of Bristol, published a few essays on some points connected with midwifery.

Dr. Male, of Birmingham, in 1816, presented the first English original work of any magnitude or value on medical jurisprudence. A second edition appeared in 1818. In 1821, Dr. John Gordon Smith published his excellent treatise, entitled "*The Principles of Forensic Medicine Systematically Arranged and Applied to British Practice*." This work has passed through several editions. Dr. Smith also published separate treatises on medical evidence, and on the examination of witnesses, and was much engaged as a lecturer on the science.*

In 1823, an elaborate and able work on "*Medical Jurisprudence*," in three octavo volumes, was offered to the British public by the eminent Dr. Paris, and Mr. Fonblanque, a barrister. Since that time, the *Manual* of Dr. Ryan, the valuable and copious *Treatise* of Professor Christison on Poisons, undoubtedly the best in the language, and the contributions of the writers in the *Cyclopedia of Practical Medicine*, are among the most important additions to our knowledge of the subject. I must now (1838) subjoin to these the treatises of Dr. Montgomery, Mr. Taylor, and Mr. Watson, and the lectures of Drs Cummin, A. T. Thomson, and Southwood Smith; and again (1850) I have to refer to the works of Dr. Traill, Dr. Guy, and Mr. Taylor, as continuing the list of English systematic writers on the science.

I must not, however, omit to mention the many valuable as well as original communications on the science contained in the British medical periodicals, and particularly in the *Edinburgh Medical and Surgical Journal*. Here the productions of Drs. Andrew

* Dr. Smith died not long since. "To him," I may say, in the language of Dr. Conolly, "the science of medical jurisprudence will always remain indebted, and it ought never to be forgotten, that he was one of the first to show, and zealously to advocate, what all now acknowledge, its usefulness and dignity." (*Transactions Provincial Med. and Surg. Association*, vol. iii. p. 40.)

Duncan (Junior) and Christison are to be found, illustrating every subject on which they touch.

Dr. Andrew Duncan (Junior) was the first Professor of Medical Jurisprudence in any British University. His venerable father had for some years previous urged its importance on the public, and even delivered, I believe, a course of private lectures,* but it was not until 1806, that Dr. Duncan, Junior, received his appointment.†

On the removal of Dr. Duncan to the chair of *materia medica*, he was succeeded by Dr. Christison, who again, on the death of the former, succeeded his teacher and friend. Dr. Traill is the present professor of medical jurisprudence at Edinburgh.

Among the earlier lecturers on this science in Great Britain, may be named Dr. George Pearson, W. T. Brande, Esq., Dr. Harrison, Dr. Elliotson, Dr. Gordon Smith, and Dr. Ryan. By a regulation of the Society of Apothecaries, adopted a few years since, an attendance on a course of lectures on forensic medicine was made a requisite for examination, and the result has been a large increase in the number of teachers. Every medical school had its lectures on this branch, and continues to retain them up to the present time.

In 1810, Dr. Rush delivered an introductory lecture in the University of Pennsylvania, (published in 1811,) in which he dwelt in an eloquent and impressive manner on the importance of the study.

In 1819, Dr. Thomas Cooper, formerly a judge in Pennsylvania, and lately president of the College of South Carolina, republished, in one volume, several English tracts on medical jurisprudence,

* A sketch of the subjects included in the sciences of medical jurisprudence and medical police may be found in an analysis of Dr. Duncan's (Senior) Memorial, presented to the Patrons of the University at Edinburgh, in 1798. (Coxe's Medical Museum, vol. v., Appendix, p. 74.)

† It is now difficult to believe that the ministry of the day were violently attacked for this appointment. Yet such was the fact. Mr. Percival, in the House of Commons, declared that he was at a loss to understand what they (the Fox ministry) could mean by the appointment of a professor of medical jurisprudence; he could not comprehend what was meant by the science. Mr. Canning, in the same debate, said he could alone account for such a nomination, by supposing that in the swell of insolence, and to show how far they could go, they had said: We will show them what we can do. We will create a professor of medical jurisprudence. (New Ann. Reg., 1807, pp. 206, 210.)

viz., Farr, Dease, Male, together with Haslam on Insanity. To these he added copious notes, and a digest of the law relative to insanity, and nuisance. This compilation has proved a very useful introduction to the study of the science. If to these be added the publication of the different editions of the present work, the reprints of Ryan and Chitty, the former with notes by Dr. Griffiths, Professor Ducatel's Manual of Toxicology, and the Manual of Dr. Williams, I shall have noticed (1838) the principal American publications on the science.

I must now (1850) add to the above the reprint of Guy's Principles of Forensic Medicine, edited by Professor Charles A. Lee; of two editions of Taylor's Medical Jurisprudence, with notes and additions by Dr. Griffiths; the republication of Dr. Christison's and Mr. Taylor's Treatises on Poisons, and also of Dr. Traill's Outlines of his Lectures on Medical Jurisprudence.

During the current year, Professor Dean has published a volume entitled "Principles of Medical Jurisprudence."

The individual who first delivered a course of lectures on medical jurisprudence in this country, was the late James S. Stringham, M.D., of New York. Having been a pupil of this gentleman, and thus derived my first impulse to the study, I may be indulged in adding a few particulars of his life.

Dr. Stringham was a native of the City of New York, and received there the elements of a classical education. He graduated at Columbia College in 1793. Having selected medicine as his profession, he became a pupil of the late Dr. Samuel Bard and Dr. Hosack, and diligently attended to all the branches of medicine then taught in New York. He subsequently repaired to Edinburgh, became a student in the University, and in 1799 received from it the degree of M.D.

Shortly after his return to his native country, he was elected Professor of Chemistry in Columbia College, and for several years delivered lectures on that science. In 1804, he voluntarily added to these a course on legal medicine. The popularity of this secured its repetition during each succeeding session until his resignation.

In 1813, he was appointed Professor of Medical Jurisprudence in the College of Physicians and Surgeons of New York, but his health shortly thereafter became impaired, and he died at the Island of St. Croix, (whither he had gone under the hope of improvement,) on the 29th of June, 1817.

A syllabus of the lectures of Professor Stringham is contained in the American Medical and Philosophical Register.*

In 1812-13, Dr. Charles Caldwell—late of the Louisville Medical College, Kentucky—delivered a course of lectures on medical jurisprudence, at Philadelphia. In 1815, I was appointed to this duty in the Western Medical College. Not long after, Dr. Walter Channing was appointed Professor of Midwifery and Medical Jurisprudence in Harvard University. Dr. Williams, late Professor in the Berkshire Medical Institution, and Dr. Hale, of Boston, each lectured on the science in the winter of 1823. Since that period, all our medical schools have more or less made it a subject of instruction.

It only remains to offer some observations on the arrangement that has been adopted in the present work.

Some writers endeavor to divide the subjects according to the courts before which they may rise, and thus devote separate chapters to civil and criminal cases. It will, however, be readily perceived that this must render the study confused. Pregnancy, for example, may be a subject of inquiry on a plea for a delay of execution, or on the application of an heir for his property. In both instances its signs require examination. So also with insanity, and several other topics. It will hence only lead to repetition to adopt this division. Foderé has escaped from the difficulty by including these subjects under the title of "*Médecine Legale Mixte*," applicable both to civil and criminal cases; but this is evidently an evasion. Dr. Gordon Smith arranges his subjects into three parts. 1. Questions that regard the extinction of human life. 2. Questions arising from injuries done to the person, not leading to the extinction of life. 3. Disqualifications for the discharge of social or civil functions.

I must confess that I have found a difficulty to attend all these attempts at arrangement, which is probably insurmountable. The subjects comprehended under the science are not of a nature to admit of a division similar to that proposed by either of the above writers. I have preferred noticing each head of discussion separately and independently. Before a legal tribunal they must be thus investigated, and the nearer we approach in our studies to this, the easier will be their application to practice.

The general arrangement is thus, I apprehend, not a matter of

* Vol. iv. p. 614.

great moment; but, on taking up a distinct topic, the first question which I have proposed to myself has been the following: *How can the examination of this point come before a judicial tribunal?* Having ascertained and stated this, I proceed to notice the physiological, pathological, or chemical facts, that are necessary to be known in the supposed case—advert to the difficulties to be encountered in the investigation—and offer, if necessary, some observations on the conformity of the law to the present state of medical knowledge. A collection of detached essays of this description—for they evidently are detached in their subjects and in their application—must prove in a great degree useful, both to the lawyer and the physician, since it enables them, in their respective capacities, to review the information that is immediately applicable to a particular instance before them. That our former attempts have met in some degree with the approbation of the learned and wise in both professions, is the best reward of the authors for the labor bestowed.

MEDICAL JURISPRUDENCE.

CHAPTER I.

FEIGNED DISEASES.

Objects for which diseases are feigned. Diseases most readily feigned. General rules for their detection. Various divisions that have been proposed. Diseases that have been feigned: Fevers, diseases of the heart, including alterations of the pulse—consumption—hepatitis—neuralgia—rheumatism—lumbago—pain in the hip and knee—*tic douloureux*—hæmoptysis—hæmatemesis—bloody urine—hemorrhoids—menstruation—jaundice—paleness of the skin—cachexia—diarrhœa—dysentery—involuntary stools—vomiting—apoplexy—vertigo—paralysis—epilepsy—convulsions—cholera—catalepsy—syncope—hysteria—insensibility—somnolency—hydrophobia—tetanus—nostalgia—scrofula—scurvy—cutaneous affections—incontinence of urine—gonorrhœa—stricture—excretion of calculi—near-sightedness—ophthalmia—amaurosis—night-blindness—deafness—deaf and dumb—stuttering and stammering—tumors—hydrocephalus—emphysema—dropsy—tyimpanitis—physconia—prolapsus of rectum and uterus—polypus of the nose—hydatids—Barbadoes leg—hydrocele—hernia—contractions and deformity—lameness—distortions—ulcers—cancers—petechiæ—otorrhœa—ozæna—fistula in ano—wounds, fictitious and factitious—fractures—maiming. Of impostors—feigned abstinence.

DISEASES are generally feigned from one of three causes—fear, shame, or the hope of gain. Thus the individual ordered on service will pretend being afflicted with various maladies, to escape the performance of military duty; the mendicant, to avoid labor, and to impose on public or private beneficence; and the criminal, to prevent the infliction of punishment. The spirit of revenge, and the hope of receiving exorbitant damages, have also induced some to magnify slight ailments into serious and alarming illness.

The extent to which the art of feigning diseases is carried, varies in different countries. Foderé observed, at the time when the conscription was in full force in France, "that it is at present brought to such perfection as to render it as difficult to detect a feigned disease, as to cure a real one."* So also in England, during her wars with Napoleon, cases of feigned diseases greatly multiplied in her armies and navies. A favorite object with many was to obtain a discharge from the service, either with or without a pension.†

Against such impositions, the police of every well-regulated country should direct its energies. A severe injury may not only be inflicted on individuals through them, but the public morals may be deteriorated. In almost every age, impostors have sprung up who affect various maladies, and operate on the superstition or the curiosity of the vulgar. And even the higher ranks of society, from motives as unworthy, have occasionally, like the courtiers of Dionysius and Louis XIV., given a sanction to such practices.

It will readily be observed, that a knowledge of this subject may frequently be necessary both in civil and criminal cases, and also in the due administration of MEDICAL POLICE. To prevent the necessity of repetition, I shall consider it at length under the present division of this work.

All maladies are not equally capable of being feigned. It is difficult to pretend those whose diagnostic symptoms are certain and established, and whose natural course it is to effect a great change in the system, and to alter the various secretions and excretions in a perceptible manner: but such, on the contrary, as are variable and uncertain in their symptoms, and

* Foderé, vol. ii. p. 452.

† Mr. Lane, in his account of the Modern Egyptians, observes: "There is now (in 1834) seldom to be found in any of the villages, an able-bodied youth or young man, who has not one or more of his teeth broken out, (that he may not be able to bite a cartridge,) or a finger cut off, or an eye put out or blinded, to prevent his being taken for a recruit. Old women and others make a regular trade of going about from village to village, to perform these operations upon the boys; and the parents themselves are sometimes the operators." (Vol. i. p. 270.)

characterized by little or no change in the external appearance, or where the correctness of an opinion depends much on the statement which the patient may give, are most liable to be feigned. Of the first class may be named inflammations, continued fevers, purulent expectoration, etc.; and of the last, insanity,* epilepsy, and pain. Not unfrequently, however, various substances are used to aid in misleading the examiner, and thus the entire skill of a medical man is often called into exercise, to ascertain the real state of the patient.

Zacchias has given five general rules for the detection of feigned diseases, which are so discriminating as to have received the sanction of most succeeding writers.†

First: The physician must inquire what are the physical and moral habits of the suspected person. He must ascertain the state of his affairs, and what may possibly be the motive for feigning disease—particularly whether he is not in immediate danger of some punishment, from which this sickness may excuse him. It was on this principle, he observes, that Galen detected the imposture of his servant, who, when ordered to attend his master for a long journey, complained of inflammation of the knee. He inquired into the habits and character of the slave, and ascertained that he was much attached to a female, whom this journey would compel him to

[* The subject of insanity has been, of late, so well studied, that this remark of Dr. Beck, though true when he made it, is so no longer. I but echo the opinions of the best modern alienists, when saying, that to feign insanity so as to deceive a true expert, is so difficult, that for practical purposes, it may be considered almost impossible.—C. R. G.]

† A writer in the London Medical Gazette (vol. xvii. p. 989) has shown, by a translation of Galen's Observations, "*how to detect those who feign disease*," that he, instead of Zacchias, deserves the honor of first proposing these rules: "It is the oldest treatise extant, expressly devoted to a medico-legal subject."

The remarks of Galen relate to feigned hæmoptysis, insanity, and pain, and their symptoms. One observation deserves mention. "When a feigner is asked about the pain he feels, he always describes it as settled in the part which he says is affected." This is not always the case. The pain is sometimes fixed and confined to one part, and sometimes felt extensively over adjoining and even distant parts.

leave. This, combined with the little alteration that so painful an affection as the one named induced, led him to examine the part, and at last he ascertained that the swelling was occasioned by the application of the *thapsia* or *bastard turbith*, and which being prevented, the tumor disappeared.

Second: Compare the disease under examination with the causes capable of producing it; such as the age, temperament, and mode of life of the patient. Thus artifice might be suspected, if a person in high health, and correct in his diet, should suddenly fall into dropsy or cachexia; and again, if insanity should suddenly supervene, without any of its premonitory symptoms.

Third: This rule is derived from the aversion of persons feigning disease to take proper remedies. This indeed will occur in real sickness; but it rarely happens when severe pain is present. Anything that promises relief is generally acceptable in such cases; those, on the contrary, who feign, delay the use of means. Galen (says Mahon)* thus ascertained deceit in another case. An individual complained of a violent colic, on being summoned to attend an assembly of the people. Suspecting artifice, he prescribed only a few fomentations, although this same person had not long before been cured of the same complaint by the use of *philonium*. Of this, however, he never spoke, nor indeed seemed the least anxious for medical aid.

Fourth: Ascertain whether the symptoms present necessarily belong to the disease. An expert physician may thus cause a patient to fall into contradiction, and lead him to a statement which is incompatible with the nature of the complaint. To effect this, it is necessary to visit him frequently and unexpectedly.

Fifth: Follow the course of the complaint, and attend to the circumstances which successively occur. Thus the inflammation of the knee, above noticed, should have produced fever, and increased in violence, according to the common course, when no remedies are applied.†

* Mahon, vol. i. p. 332.

† Zacchias, tome i. p. 289.

Before proceeding to notice separately the various diseases that may be feigned, it will be proper to advert to a species of simulation mentioned by Zacchias, under the name of *simulatio latens*. By this he understands a case in which disease is actually present, but where the symptoms are falsely aggravated, and greater sickness is pretended than really exists. This may be more difficult of detection in some respects; and it requires, like the cases above noticed, the skill of the physician experienced in the history of disease, to guide aright.

Several classifications of feigned diseases have been suggested. Thus Marc proposes to arrange them under the heads of *imitated* and *produced* diseases, (*par imitation et par provocation*.) The authors of the article on this subject in the *Cyclopedia of Practical Medicine*, say that they are referable to four groups: *feigned*, or altogether fictitious; *exaggerated*; *factitious*, being wholly produced by the patient, or with his concurrence; and lastly, *aggravated*, or real possibly at first, but intentionally increased by artificial means.

It is not necessary to notice them, under either of these divisions, at the present time. I propose to mention the principal diseases that have been feigned, somewhat in the usual nosological order, and to state under each the most approved mode of detection.

FEVER may be induced by the use of various stimulants, such as wine, brandy, cantharides, etc. It is often assumed when a disease is suddenly necessary, to avoid military requisitions, or the performance of work in prisons. Foderé states that he has observed a feverish state of the system induced intentionally by violent exercise; and then calling for the physician, has noticed the patient imitating the cold fit to admiration. Dr. Cheyne was sent for to a soldier, who was said to be in the chill of an intermittent. He found him shaking violently; but on throwing off the bedclothes, he was seen, not in the *cold*, but in the *sweating* stage, produced by his exertions. Of all cases of feigned fever, it may be remarked that they are ephemeral. A day or two's examination gen-

erally develops the deceit, as a frequent repetition of the use of stimulants is too hazardous, and real disease might then be the consequence. In doubtful cases, the remarks of Dr. Hennen should be remembered: "Neither the quickness of the pulse nor the heat of the skin are infallibly indicative of the presence of fever; and therefore it is, that the state of the tongue, stomach, and stools, and of the senses, should be most particularly attended to."* And even these require close examination. In a soldier under Dr. Cheyne, where great complaint was made of pain in the chest, etc., the tongue was of a dry, white appearance, made so by rubbing it with whiting from the wall. When washed with tepid water it was clean and moist. Dr. Hutchison saw a French prisoner with an extremely small and rapid pulse; his tongue was covered with a brown coating, the eighth of an inch thick, and withal he was vomiting. The smell alone of the ejections proved that he had swallowed tobacco; and on removing the matter from the tongue, it was found to be common brown soap. After this, he recovered in a few hours. Chalk, pipe-clay, brick-dust, flour, have all been used for coating the tongue. I may also add, that those feigning intermittents often pretend that the chill comes on during the night. This is a very uncommon circumstance in ordinary practice.†

[When fever is simulated, the intermittent type is usually selected. The rigors may be well imitated, but the other stages of the paroxysm do not follow in due order and proportion. Gingerbread and extract of liquorice have been used to change the appearance of the tongue. As an exception to the rule, that factitious fevers are ephemeral, the case of a woman under my care at Bellevue Hospital, N. Y., in 1839, may be cited. In order to secure the comforts of that institution, this woman drank, from time to time, portions of her urine, and asserted that there was none secreted or voided.

* Hennen, p. 198. "Scrubbing the skin with a hard brush, gives a flush difficult to distinguish from the color caused by fever, and only to be detected by waiting patiently by the bedside until it subsides." (DUNLAP.)

† Marshall, p. 110.

The symptoms thus produced were those of advanced *typhus*, though her body and breath exhaled an urinous odor. Her bedding was dry and clean, and the catheter failed to detect any accumulation of urine. At times her condition seemed critical, at others, her health was nearly restored; but it was not till after repeated relapses, that her imposture, early suspected, was fully demonstrated.—R. H. C.]

DISEASES OF THE HEART.—The *pulse* is sometimes found extremely weak, and occasionally none is perceived at the wrist. Should deceit be suspected, the physician may examine whether ligatures have not been applied to interrupt the pulsation, and he should also ascertain whether the arteries beat at the corresponding extremity. I am indebted to my late worthy preceptor, Dr. M'Clelland, of Albany, for a case illustrating this point. During the period of his attendance at the Royal Infirmary in Edinburgh, a person applied for and obtained admission, on the score of ill health, who had formerly been a patient there. The attending physician examined the pulse at the right wrist, but found none; he then tried the left, but with similar success. The trick was carried on for several days, at the end of which time it was discovered that the patient was in sound health, but that whenever the pulse was to be examined, he pressed his finger on the artery under the armpit.*

* "I have seen a gentleman, who, by the exertion of the muscles of the arm and thorax, could stop the action of the pulse at the wrist; but in so doing, he required to call into action all the muscles of the arm: so that, should a *malingerer* attempt this, the cheat would be easily discovered by feeling the arm above the elbow. There was a preparation in the museum of Mr. Allan Burns, and which I believe is at present in the possession of my friend, Mr. G. S. Pattison, of Baltimore, U. S., where a slip of muscle passed across the humeral artery, and impeded its action. On inquiry being made, it was found that the subject had been a servant-girl; and though strong and healthy in other respects, she could never, for any length of time, pump a well or switch a carpet.

"In the army hospital, where I have been accustomed to skulkers of all kinds, whenever I suspected a man of deceiving me as to his pulse, I felt it at the temporal or carotid artery, under the pretext of saving him from the trouble of taking his arm from under the bedclothes." (DUNLOP.)

Ligatures have sometimes been applied, to produce the appearance of aneurism of the heart, or great vessels. In two cases in France, they were found tightly bound round the neck; one was so fine that it was almost hidden by the folds of the skin. The countenance was terribly swollen and livid; but on removing the ligatures from the neck, and in one instance also from the top of each arm, this purple and swollen state of the face disappeared, and the irregular action of the heart ceased.*

[Many persons can diminish the force of, or even stop the pulse at the wrist, by taking a full inspiration and dropping the shoulder with the arm and elbow close to the side. A tight coat will aid in this imposture. In examining the pulse of persons dressed, my habit is to support the elbow and carry it from the body. Some persons have, in health, an intermittent pulse. PALPITATION may be excited by strong compression of the abdomen with a bandage or waistbands of skirts or trowsers; and it is said that hypertrophy may be thus induced. Hennen relates a case of violent palpitation produced by the man's own efforts, (Mil. Surg. ;) and it may also be caused by tea or coffee in excess. The circulation may be excited by various stimulants, or depressed by arterial or nervous sedatives, such as digitalis and American hellebore. The former are easily detected; the latter have distinctive characteristics, and frequently endanger life. Artificial means so violent as to simulate aneurism, hypertrophy, or pericarditis, will, if continued, produce those diseases. (*Gavin.*) In this class of cases, examine the heart and chest by percussion and auscultation.—R. H. C.]

Internal remedies have also been used to produce palpitation and derangement of the functions of the heart. The powder of white hellebore was thus applied, at first, by a man who had lived with a veterinary surgeon. He not only produced the disorder in himself, but sold his secret and his drugs to others, so that many in the same corps (the marine artillery) were affected with it, and in consequence invalidated, before the decep-

* Scott, Cyclop. Prac. Med., vol. ii. p. 138.

tion was discovered.* Garlic, tobacco, and other irritating substances, introduced into the rectum, have been known to cause violent palpitations and fever.†

CONSUMPTION.—This is sometimes feigned by men desirous of obtaining a discharge. They complain of pain in the chest, and cough, produce emaciation by abstinence and drinking vinegar; and mix up the expectoration, it may be of catarrh, with puriform matter obtained from others, and tinge it with blood from the gums.‡ It requires, however, only a proper acquaintance with the phenomena of the real disease, and a sufficiently prolonged examination of the case, to detect it. Patients recovering from catarrh or bronchitis, may simulate the symptoms of consumption. The history and the physical signs will suffice for a correct diagnosis.

HEPATITIS, in its chronic form, is very frequently simulated by those who have been long in the East or West Indies. They are often able to enumerate most of the symptoms correctly. Marshall relates the case of a recruit who referred the pain to the left side. He was cured by the *mistura diabolica*. These cases, however, require close examination as to the pulse, local enlargement, secretions, and excretions; and, above all, mercury (says Dr. Cheyne) should never be given in any doubtful case. The course of salivation is what is most desired by the malingerer.§

* "At the General Hospital at Chatham, this was lately practiced to a great extent. The mode employed was, to take fifteen grains of hellebore, which produced great excitement, and which was maintained by taking four grains daily. The practice was introduced by a man who had been servant to a veterinary surgeon. One man took an overdose, and died in consequence."—DUNLOP. [Others would have died but for the employment of remedies, and the frequency with which the drug is adulterated.—R. H. C.]

† Dr. Cheyne expresses his conviction that many soldiers have the power of quickening their pulse, when they expect a visit. Thus he has found the beats as frequent as 120 or 130 in a minute; and on returning unexpectedly in a quarter of an hour, they were reduced 30 or 40. Seamen sometimes produce this temporary quickness by knocking their elbows against a beam.

‡ Marshall, p. 120.

§ Cheyne, p. 173.

PAIN, whether simulating neuralgia, rheumatism, lumbago, or affections of the hip and knee joints, is the symptom of disease most easily pretended. In proportion to the facility of assuming it, must be the vigilance of those whose duty it is to detect the fraud. The inquiry should be made in all suspicious cases, where the disease is seated—what is probably its cause—the nature of the pain—its duration—its symptoms and effects, and what remedies have been already used?

The seat of pain is either the external or the internal parts. Patients will not so readily feign the former, since the deceit is liable to be soon detected; and, in addition to this, it is generally of that kind which is deemed a slight disease. Pain in the external parts is, moreover, often accompanied with heat, redness, change of color, or tumor. Gout is sometimes pretended, and, above all, rheumatism, for which the soldier is always ready to assign sleeping on the ground as the cause. Both of these diseases have diagnostic symptoms—redness, etc. in the one; and tumefaction, or diminution of size, with retraction or loss of motion, in the other. But it is equally true, that there are species of severe pain, in which the physician can find no external appearances to found an opinion; and of this description are neuralgic, scorbutic, and venereal pains. Internal pain is accompanied with symptoms which it is impossible to assume, and their absence will of course lead to suspicion. Each organ presents peculiar symptoms, which, if the disease be real, are not periodical or occasional in their manifestations, but incessant, and their severity is generally greater during the night. Inquiry ought also to be made concerning the cause of sickness, and a comparison drawn between it and the violence of the malady. With respect to the species of pain, we should examine whether it be sharp, heavy, or darting, and then compare this with the symptoms. It is, moreover, important to know the duration of the pain complained of; since it is very rare that it is prolonged for any length of time, without exhibiting manifest and unequivocal signs. If violent or persistent pain is stated to be present, and the patient notwithstanding enjoys a good appetite, sleeps

well, and does not lose flesh, we have reason to doubt its severity, and even its reality. Much may also be learned from the remedies employed. When powerful ones are indicated, the patient will not object to their application if the disease be real. It may also be proper to mix a little opium in the food of the patient; and if sleep be thus readily induced, we may form an opinion as to the magnitude of the disease.

Notwithstanding the above directions, instances have occurred of physicians mistaking real pain for feigned, and feigned for real. "I refused," says Foderé, "for fifteen years, a certificate of exemption to a young soldier, who complained of violent pain, sometimes in one limb, and sometimes in another, and occasionally in the thorax or pericranium, without any external sign to indicate its existence. He died at last in the hospital, from the effects of the malady, which he always insisted was a species of rheumatism. I examined the body after death, viewed all the former seats of disease, but discovered nothing either in the membranes, muscles, nerves or viscera; and was hence led to believe that life was destroyed solely from the repetition and duration of those pains."* This case induced a determination in our author to be more lenient in future. The result will be seen in the following instances. An artillerist, from the garrison of Fort de Bouc, was brought to the hospital at Martigues, with a violent pain in the left leg, which was attributed to sleeping on the damp ground. During the space of eight months, a variety of antimonial preparations, together with mercurials and tonics, when indicated, were administered along with local remedies, but without any relief. The leg, from the repeated use of

* Foderé, vol. ii. p. 471. Dr. James Johnson relates the case of a man who complained of inability to move his shoulder-joint without much pain, and yet nothing could be seen externally for a month or six weeks, during which time he was excused from duty. At length the surgeon became suspicious, and finding that he still made the same complaint, reported him, and he was flogged as a skulker. Shortly, however, a deep-seated abscess was discovered in the shoulder-joint, from which large quantities of pus were evacuated. Anchylosis of the joint followed. (*Medico Chirurgical Review*, vol. iv. p. 596.)

epispastics and cauteries, became thin, and rather shorter than the other; while from the low diet ordered, there was a general paleness and lankness of the system. Under these circumstances, Foderé could not refuse him a certificate as a real invalid. With the aid of a crutch, he dragged himself to Marseilles, where he obtained the promise of a discharge. He was ordered to return to the fort to await its arrival; but on his way thither, being too overjoyed, he was met by his commander, walking without his crutch. On being put in prison, he avowed the fraud.

A deserter, condemned to hard labor, was conducted from prison to the workshops, marching on two crutches, as being paralytic in the lower part of the body, and from thence to the hospital, where he remained thirteen months. He supported during that time, with the greatest fortitude, the application of epispastics, moxa, and cupping; asked earnestly for the trial of new remedies, and excited the commiseration of all who saw him. At the end of the above period he was dismissed. In a short time he abandoned the use of his crutches, and never employed them except when he expected to be observed.*

It is evident from these cases, that the difficulty of detection is often great. "The imposition is more frequently discovered by the inconsistencies and contradictions which a patient makes in the history of his complaint, than by diagnostic symptoms."† There is also often great aversion to the proper modes of cure.

Internal pain, the existence of which it is difficult positively to deny, may be discovered to be feigned by examination during sleep. Thus a soldier complained of severe pain in the abdomen, and screamed on the slightest touch to that part. He was bled, and afterwards an anodyne exhibited. About midnight he was visited by the medical officer, and found sound asleep. Pressure was made on the abdomen, and afterwards considerable kneading, before he awoke.‡

* Foderé, vol. ii. pp. 437, 474.

† Marshall, p. 115.

‡ Marshall, p. 118.

Lumbago, where the body has been bent nearly double, has been repeatedly removed in a moment, by Baron Percy, holding the individual in an interesting conversation, while an assistant approached insidiously and pierced him behind with a long needle.

Chronic rheumatism, according to Dr. Cheyne, is distinguished by some disorder of the digestive organs, impaired appetite, a degree of pyrexia in the evening, yielding during the night to perspiration. There is also some emaciation, wasting of the muscles of the affected limbs, and puffiness of the joint. The feigned, on the contrary, do not lose their healthy appearance—have no fever—do not become worse with damp weather, but are complaining at all times—and even allege that they have entirely lost the use of the part affected, which seldom happens in real rheumatism.*

An interesting case of feigned *tic douloureux*, or facial neuralgia, is mentioned by Dr. A. T. Thomson in his Lectures. It occurred in the person of a girl aged fifteen, who pretended to suffer great pain just back of the symphysis of the lower jaw. It produced her removal from school, the object she had in view. On a subsequent attack, Dr. Thomson resolved to try the effect of a strong mental impression; and understanding that she entertained great antipathy against a dog, informed her that the only remedy remaining was to rub the affected part over the back of that animal. The consequence was, the immediate removal of the disease, and its continued absence for eighteen months. This case, according to Dr. Thomson, has been published in the medical journals as an illustration of the effect of mental impressions on the nervous system. Yet, eight years afterwards, when this female had become a wife and mother, she wrote to him, stating that the whole course of the disease had been a deception.†

HÆMOPTYSIS is feigned by pretending to cough, and then spitting out the blood which comes from pricking the gums;

* Cheyne, p. 170.

† London Medical and Surgical Journal, vol. vii. p. 101.

or it may be assumed by constantly holding some Armenian bole or vermilion paint under the tongue, which tinge the saliva red. Periodical attacks of this disease are most commonly simulated; but it is difficult to counterfeit the accompanying marks of disease—such as the cough, flushed cheek, and even the *florid* and coagulated state of the blood. Orfila recommends that they should be made to spit without coughing, when the bloody saliva will be seen.

[Hæmoptysis may also be feigned by scarifying the posterior nares or fauces; the blood trickling over the glottis excites the secretion of mucus, and cough. When this is suspected, make the patient blow his nose, or draw air forcibly through the nostrils; blood mixed with mucus will be discharged. If the hemorrhage be considerable, ascertain the presence or absence of physical signs of diseased lungs. In hæmatemesis look to the veins for cicatrices, and ascertain whether or not visceral disease be present. Note also the quantity of blood and degree of nausea, which, except in females, when the discharge is vicarious, are usually so great as to cause marked mental and physical depression. When foreign blood is suspected, use the microscope.—R. H. C.]

HÆMATEMESIS, or vomiting of blood, is simulated; and for this purpose, pretenders drink the blood of some animal, use some colored liquid, or swallow their own blood, and then throw it up in the presence of spectators. Sauvages, in his *Nosology*, mentions of a young lady, who, being unwilling to remain in a convent, had some blood of an ox brought to her, which she drank, and then vomited in the presence of her physician. As no deceit was suspected, he stated that she was really ill, and she thus obtained her liberty.* A similar case is related of a female, who accused a person of having maltreated her. She went to bed, and brought up large quantities of blood without any effort. She could, however, sing, cry, and put herself in a passion, without the disease recur-

* Mahon, vol. i. p. 361.

ring; and it ceased when she found that the deceit would prove useless.

BLOODY URINE has been frequently feigned, either by adding blood to the excretion, or by using substances that have the quality of reddening it, such as the prickly pear or Indian fig, (*Cactus Opuntia*,)* the beet-root, madder, etc. The Spaniards, on their discovery of America, ate largely of the Indian fig, and were much alarmed at the consequence. It only requires cautious examination to detect this deceit. The individual should be made to urinate in the presence of the physician, and the vessel used should be carefully examined both before and during the process. The blood in real cases, when the urine is heated to the boiling point, furnishes a brown coagulum. The attendant symptoms, also, can hardly be mistaken.†

High-colored urine may be produced by various stimulants, such as wine, cantharides, etc. The experiment, however, is often hazardous, and foreign substances are hence more frequently used to give it the appearance of disease.‡

[Besides the articles above mentioned, black cherries, cochineal, logwood, and some species of strawberries, have been used by ingestion or admixture to redden urine. Bloody urine gives a clear red stain to linen dipped into it; and, when evacuated in a fluid state, forms a coagulum on linen in cooling. (*Howship on Dis. of Urinary Organs*.) If blood be present in any considerable quantity, a portion of it will subside on standing. Examine the urine in a shallow vessel, as depth increases its color. The cases most difficult to detect

* Zacchias, lib. iii. tit. 2, p. 290.

† Dr. Watson on Hæmaturia, Med.-Chirurg. Review, vol. xxi. p. 491.

‡ A boy, in Staffordshire, in 1617, accused a woman of having bewitched him, and succeeded so well in feigning convulsions, etc., that she was tried and condemned to die. He grew apparently worse, and the urine which he openly voided was black. A spy, however, detected him in dipping a small piece of cotton in ink, and placing it inside of the prepuce. (*Memoirs of Literature*, vol. iv. p. 357.)

are those in which blood is injected into the bladder, (*Percy* and *Laurent*;) the disease is thus closely simulated, but the procedure is dangerous. Ascertain whether disease of the kidneys, ureters, or bladder be present, and use the microscope.—R. H. C.]

HEMORRHOIDS have been imitated, like other hemorrhagic complaints. So also has *menstruation*, by staining the clothes and body with borrowed blood. Baron Percy says that hemorrhoidal tumors have been very artfully constructed, by means of small bladders inflated and tinged with blood, and attached to a substance introduced into the rectum.*

[The broad base and violet color of old piles render this fraud impossible when we can see the base of the tumor; when this cannot be seen, examine with the index finger, or puncture with a needle, which will cause the false tumors to collapse. (*Gavin*.) In cases of alleged menstruation, use the microscope; if the fluid be menstrual, bear in mind the possibility of collusion with some female, and examine the os uteri with a speculum.—R. H. C.]

JAUNDICE, when real, is known by the discoloration of the adnata, and of the urine. Clay-colored stools are also another indication; yet it is stated that individuals in France have imitated these to perfection, by taking daily a small quantity of muriatic acid. There are several substances, as curcuma or rhubarb, which, on being taken internally, produce a yellowness of the skin; but in such cases it is proper to recollect that real jaundice is frequently accompanied with vomiting, pain, and sleeplessness. The most unequivocal symptom, and therefore the most to be relied on, is the color of the adnata. If yellow, jaundice is present, originating either from disease or some artificial cause. A French conscript, however, always put snuff in his eyes before the surgeon's visit, to prevent their examination.†

* Scott, vol. ii. p. 143.

† Percy, quoted by Scott, etc.

[Jaundice has been *successfully* simulated. The yellowness of the skin is usually imitated by painting with an infusion or tincture of the substances named by Dr. Beck. Languor, or inactivity, and extreme depression of spirits, usually attend the real disease. The mucous membrane of the mouth and fauces is yellow. The urine gives to white linen a bright yellow stain, which is changed to green by muriatic acid.—R. H. C.]

PALENESS OF THE SKIN, on the other hand, has been caused by burning sulphur, by the use of digitalis, the abuse of emetics and purgatives; but watchfulness, and preventing their use, check the effects. The general state of the system does not correspond with the appearance.*

[Tobacco in small quantities, infusion of cumin, the oxides of copper, and vinegar have been used to produce paleness, the last quite frequently.—R. H. C.]

CACHEXIA and GREAT WEAKNESS are also often feigned, by using substances to make the face appear pale and livid. In these instances, inquire whether there is a loss of appetite, or of strength, or swelling of the legs. Examine also the pulse and the skin, whether the first be strong, and the latter hot.†

* Orfila, Leçons, vol. i. p. 422.

† A very curious work was published at New Haven in 1817, under the title of *The Mysterious Stranger, or Memoirs of Henry More Smith*. It purports to be written by the sheriff of King's County, New Brunswick; and I have repeatedly understood that there is no doubt of the authenticity of all the material facts. The hero of the story was a most accomplished villain. While in the prison at Kingston, New Brunswick, he began to spit blood, had a violent cough and fever, and gradually wasted away, so that those who visited him supposed that his death was rapidly approaching. This continued for a fortnight, and his weakness was so great that he had to be lifted up in order to take medicine or nutriment. A turnkey unfortunately, however, left the door of the prison open for a few moments, in order to warm a brick for his cold extremities. On his return, *Smith had disappeared*. After many adventures and hair-breadth escapes, he was now a prisoner in the Newgate of Connecticut. There also he has feigned cachexia, hæmoptysis, and epilepsy, but with no success. He confessed that he pretended

[These forms of feigned disease are favorites with mendicants, who not only artificially pale the skin and tongue, but imitate a sickly aspect and great exhaustion, appearances which are rendered more effective by ragged and dirty clothing, and heightened by a white napkin worn over the head and ears. (*Gavin.*) Swelling of the legs may be produced by ligatures round the thighs, but the lustreless and sunken eyes, the loose and flabby skin, and the broad, watery tongue of extreme cachexia and debility, cannot well be imitated.—R. H. C.]

DIARRHŒA AND DYSENTERY.—The former of these has been excited, in naval hospitals, by a mixture of vinegar and burnt cork; and in prisons, by a solution of sulphate of iron, obtained from convicts employed as shoemakers, to whom it is furnished for blackening leather. Suppositories of soap or other irritating substances have been introduced into the rectum, to imitate the mucous discharges in dysentery; and with such persons, of course it is not difficult to procure the addition of blood. The stools have been broken down with urine. It requires watchfulness, and particularly the exclusive use of a night-chair, to detect these cases. Many young men are said to have lost their lives in consequence of the use of the above substances.*

[In diarrhœa, inspect the linen; if clean, especially in the lower classes, we may infer that the disease is slight. In dysentery, the odor of the stools, and sometimes that of the person also, is peculiar and easily recognized.—R. H. C.]

INVOLUNTARY STOOLS.—If the sphincter ani contract on the finger, opium and solid food should be given, and a careful watch preserved. If the suspected person pass solid feces in

to raise blood by pounding a brick into powder, putting it in a small rag, and chewing it in his mouth. He contrived to vary his pulse by striking his elbows; and said he had *taken the flesh off his body in ten days, by sucking a copper cent in his mouth all night, and swallowing the saliva.*

* Hutchison, p. 181; Cheyne, p. 171.

bed, punishment should be inflicted. On one of these simulators, (who also pretended sciatica and loss of the use of his lower extremities,) in the General Hospital at Lisbon, it was determined to apply the actual cautery. He was laid on his face, and held by three men. When the surgeon applied the red-hot spatula to his hip, he *kicked down* one of the men who held him, and declared that he had been *shamming*.*

VOMITING.—Some persons possess the power of expelling the contents of the stomach by pressure on the abdomen; others by swallowing air. It appears that nature or habit has given this to a few individuals. In many, however, frequent vomiting is a symptom of organic disease. Dr. Hutchison had a case in the Baltic, where it occurred so frequently as to become alarming. It was soon observed, however, that the vomiting was periodical, occurring when the physician paid his morning or evening visit; and in the interval, the patient ate his usual allowance of food, without any injurious effect. He was watched, and it was found that he made pressure on the region of the stomach with his hands, applied under the bed-clothes. Whenever these were secured, the vomiting ceased.†

Dr. Cheyne remarks that the vomiting of *undigested* food is suspicious, and particularly advises that the case should be watched, to avoid mistakes. The stomach may be diseased. The absence of emaciation, and the continuance of a good appetite, are, however, circumstances indicating a healthy state of that organ.‡ To vomiting, some, according to Orfila, have added the complaint of *difficult deglutition*.

[Dr. Copland (*Dict. of Med.*) met with a case where vomiting was induced at will by the action of the abdominal muscles, *without* the aid of irritating the fauces. It is important to

* Cheyne, p. 147.

† Hutchison, p. 168.

‡ Cheyne, p. 167. A remarkable case of voluntary vomiting occurred some years since in this country, in a distinguished public individual. I forbear relating any of the particulars, lest I might unwittingly trench on the sacred privacy of domestic affections and sorrows. “Non sibi, sed patriæ vixit.”

note the duration of the several paroxysms, as well as the regularity or irregularity of their recurrence. In feigned vomiting caused by tobacco, the appetite is impaired. Foreign substances, even urine and feces, have been vomited by females who have voluntarily swallowed them for the purpose of thus exciting wonder and pity.—R. H. C.]

APOPLEXY will only be feigned by those who hope for immediate escape from some impending punishment. From the nature of the disease, it cannot be long dissembled. If it be necessary to ascertain the truth at the first moment of the attack, powerful remedies, such indeed as are indicated in the real disease, should be employed. Zacchias observes that feigned apoplectics cannot resist the action of sternutatories.

In VERTIGO AND HEADACHE, the malingerers generally overact. The giddiness is too violent, and the state of the stomach is not noticed. The pulse and the eye should be particularly examined. The former is slow and irregular, and the latter inexpressive.*

[Of all diseases characterized by pain, headache is the most frequently pretended or exaggerated, particularly by students, persons having permanent salaries, and ladies. As there is no disease which “tries the science, experience, power of observation and acumen of the physician” (*Copland*) in a greater degree, so there is none more difficult to pronounce feigned. Much that has been said under PAIN is applicable here. No concise rules for detection can be given; but it may be observed that this class of pretenders manifest reluctance to remedial treatment, and are apt to suggest relaxation from study or duty, and change of air.—R. H. C.]

PARALYSIS, in many respects, requires the same treatment as rheumatism. It is frequently feigned to extend to the superior or inferior extremities; in other instances, a single limb only is stated to be affected by it. This last is a rare occur-

* Cheyne, p. 150.

rence; [lead palsy excepted.—R. H. C. ;] and the existence of the disease is to be doubted, if the general health be otherwise good.

Œdema of an extremity, in these cases, is sometimes excited by the continued use of ligatures. Among the remedies most efficient, are electricity and the actual cautery. Dr. Blatchford gave a pretended paralytic in the New York State Prison, whose case resisted every description of medicine, a severe electric shock. He started up, ran into the hall, and asked for his dismissal from the hospital. Where powerful means like these have failed, finesse or accident has succeeded in developing the fraud. Dr. Davies, at Chatham, England, knocked gently, at the dusk of the evening, on the window of one who could not move, and had lain in bed for a month. On calling him gently by name, he was at the window in an instant.*

Dr. Hutchison gave to one, who said he had a paralysis of the right arm, fifty drops of laudanum in his tea. When sound asleep, the doctor went into his apartment and tickled his right ear with a feather, when instantly the lame hand was raised. A repetition of this caused more active exertion. In another instance, the right hand was said to be powerless. The patient was brought before a board of medical officers, for the purpose of being invalidated, if found diseased. It was winter, and the surgeon proposed that the hand, in its relaxed and useless state, might be placed over the edge of the table round which they were sitting, while assistants should keep the arm and shoulder firmly fixed. In this situation, a red-hot poker was gradually brought under the hand. As it came nearer and nearer, the hand gradually rose to the full extent of the powers of the extensor muscles. A half-witted fellow brought out another, by saying that he had seen him use his arms as well as any one.†

* Scott, vol. ii. p. 134.

† Hutchison, p. 164. "Simulators are commonly not aware that paralytic limbs are very pliant, and they occasionally offer some resistance when any attempt is made to bend them. A healthy arm trembles when a heavy weight is appended to it—a circumstance which does not take place when it is paralytic." (*Marshall on Enlisting and Discharging Soldiers*, p. 152.)

A most obstinate case, however, according to Mr. Marshall, was that of a private, who for two years endured everything that medical skill and suspicion could suggest. His complaint was paralysis of the lower extremities. He was finally sent home from the Mediterranean to be invalided. While in the harbor, an alarm of fire was given on board ship. All hurried to the boat alongside, and on reaching the quay, the passengers were mustered. It was found that the invalid had saved not only himself, but his trunk and clothes.*

In these and similar cases, it is remarkable how parts of the body can be kept for so long a time (two or three years) in a state of inactivity, with hardly any diminution of muscular power. Dr. Cheyne relates some laughable instances of agility, immediately consequent on successful deception. When the malingerers were sure of their discharge, they threw their crutches before them, and disappeared in a moment.†

* Marshall, p. 124. In another long protracted case, where the individual asserted that he had lost the power of using his lower extremities, and every attempt at detection had failed, the fraud was discovered by rubbing cowhage (*Dolichos pruriens*) on the soles of the feet, at bedtime. He walked and groaned all night, and the next morning reported himself fit for duty. Page 104.

† I cannot forbear adding the following American case, extracted from a New Jersey newspaper: "A dexterous deception was recently practiced upon the court of sessions at Hackensack. A fellow who had been a long while in prison, awaiting trial on an indictment for perjury, a few days prior to the time appointed, had a severe paralytic stroke, which rendered one side entirely powerless. In this helpless condition, he was carried from the prison into court on a bed. The spectacle of an infirm fellow-being, trembling into the grave, on a trial for perjury, had a visible influence upon the sympathies of court and jury. The evidence, however, was so unequivocal that the jury convicted him. During the progress of the trial, he became so faint that a recess was granted, to enable him to be reconveyed to his apartment in the prison, for revival, the prosecuting attorney kindly lending assistance. The court, in view of the prospect of his being speedily called to a higher tribunal, instead of sentencing him to the State Prison, simply imposed a fine of five dollars, which his brother, who manifested the most fraternal solicitude, paid, and conveyed him away on a bed in a wagon. The next day, the prosecuting attorney encountered the fellow at the foot of Courtlandt Street, in New York, who told him laughingly that he had recov-

In only one case (says Mr. Marshall) has he seen palsy of the upper eyelid attempted; and here the muscular resistance to every effort to raise it, showed the deception.*

In some recent cases, ETHER has been employed as the detecting agent. M. Baudens states two instances, one of simulated and the other real infirmity, in which its inhalation determined the nature of each.

A soldier of the 25th Regiment, who had been in service for eighteen months, presented himself with an apparently severe spinal disease. The back was bent almost in the form of a semicircle, and when placed on a table, in the recumbent posture, the lumbar region was the only part that touched it. Possibly by allowing him to remain a sufficient length of time in this state, the contractility might have yielded; but M. Baudens forbade that he should be handled, and even directed a bolster to be placed under his head, as a means of support against fatigue.

In four minutes after inhaling the ether, insensibility came on, and to this soon succeeded a complete relaxation of the limbs. The bolster was gently withdrawn, and the head, neck, shoulders, and back in regular succession descended in close contact with the table, by their own weight, so that he lay, in the words of the reporter, *a-plomb*. The deceit was manifest.

In the second case, a new recruit applied for a discharge, on the ground of having a complete anchylosis of the coxo-

ered; and then, dropping his arm and contracting his leg, in true paralytic style, hopped off, leaving the learned counsel to his own reflections!"

* So far as I am enabled to judge, the case noticed by Dr. McLoughlin, of Paris, in his *Consultation Medico-legale sur quelques signes de Paralysies vrais, et sur leur valeur relative*, Paris, 1841, is, to a great extent, one of feigned parâlysis, although the opinion of Cruveilhier was to the contrary. The details are too voluminous to be here given, but the pamphlet deserves a perusal.

See also *Medico-Chirurgical Review*, new series, vol. ii. p. 559, for a still later analysis of the case. The woman is (1845) alive and well, at Naples, although Cruveilhier, years ago, predicted her speedy death, from disease of the brain.

femoral articulation of the left side. On moving the limb, there was a spontaneous contraction, which seemed to be voluntary, and this caused suspicion. The patient readily submitted to the test of the ether. In five minutes, symptoms of somnolency began to show themselves, and in eight the insensibility was complete; but the contraction still continued, nor was there a complete relaxation of the muscular system until at the end of twelve minutes. On moving the limb at this time, the fact of complete ankylosis was perfectly established. It was, in fact, perfectly impossible to make any motion with the femur, without embracing that of the whole pelvis. No question remained as to the propriety of discharging this person. (*Comptes Rendus*, March 8, 1847.)

EPILEPSY.—It is remarkable that a disease so much dreaded by the real sufferer should be so often feigned; yet this is really the case, and the cause probably is, the affright and pity that may be inspired; or else the short exhibition of disease that is necessary, leaving the patient to act as he pleases during the interval. In all suspicious cases, it is proper to notice whether the sick person is suddenly and generally affected—whether the face and nails are livid, the pupil fixed, the lips pale, the mouth disturbed and frothy, and the pulse altered.* The physician ought also to observe whether sleep† follow the paroxysm, and also if the patient complain of dullness of sensation, vertigo, and great weakness. All, or most of these symptoms, accompany real epilepsy. But the surest sign of this disease is a loss of feeling, so that sternutatories, and even the actual cautery, produce no effect during the paroxysm. This immediately gives us a mode of detecting artifice. An artillerist at Martigues had acquired, from fre-

* Fallot remarks (p. 28) that in the real epileptic, the pulse is often small and hard, and sometimes slow in the midst of the most horrid convulsions; while in the dissembler, it necessarily, from his violent efforts, is always full and quick. The heart, however, beats rapidly and violently in real cases, and this is with great difficulty imitated.

† In the epileptic fit, there is an entire loss of consciousness. (WATSON.)

quent practice, such skill in feigning this disease, as almost to deceive Foderé; and this, indeed, would have been the case, had he been also able to resist the application of fire. This always recovered him, though he lay apparently without sense, his eyes starting from their orbits, and his mouth foaming. He afterwards confessed that he never counterfeited a paroxysm without feeling for several days a violent pain in the head.*

De Haen was consulted by a mother, whose daughter, after being cured of deafness, became epileptic. He directed her to be brought to the hospital at Vienna, where he attended. The fit, which at first did not occur more than once or twice a day, now recurred every hour. It resembled a real one, as the hands were violently clenched, and the eyes disordered; but he suspected deception, for the following reasons: She did not open her eyes, during the paroxysm, with a wink, but in the natural manner; her pulse was natural; when the curtains were drawn, the pupil of the eye was dilated, and when opened, it was contracted, and this last occurred very violently when a candle was presented. Convinced that the disorder was pretended, he ordered her to be taken out of bed, and directed the attendants to keep her in an erect posture. If she fell, they were to chastise her severely. A cure was thus effected; and she confessed that both the deafness and epilepsy were feigned, to avoid going to service. In another case, a female, aged twenty, confined in prison for a murder, had on her the marks of three successive burnings, which she resisted without confessing the deceit. De Haen, and many others, saw her imitate a paroxysm of epilepsy with such horrible accuracy,

* Foderé, vol. ii. p. 464. "A case is related of a country boy, who feigned epilepsy, to avoid work. A surgeon was called, who suspected the deceit, and observed to one of the by-standers, that if it was a true fit, as he thought it was, the patient would turn round on his face and bite the grass; this he did, and so betrayed himself. On occasions of this kind, it is proper to examine the mouth *for soap*, which is easily done by pressing the cheeks against the grinder teeth. I once saw a pseudo-epileptic, in Edinburgh, recovered by the simple expedient of calling a police officer." (DUNLOP.) The *soap* is put into the mouth to produce frothing.

that the feigned was supposed to be real, until in the midst of it, being ordered to rise, she got up and walked away. In such an instance, our author recommends the remedy used at Paris. A beggar there, often fell into fits in the street. A bed of straw, through compassion, was prepared, on which he might be laid, to prevent injury to himself. When next attacked, he was laid on it, and the four corners set on fire. He sprang up and fled.*

Various substances have been successively applied to detect the imposition, as snuff blown into the nostrils, (and Dr. Hutchison remarks that he had tried this on the real without any effect;) flannel dipped into hot water, and applied to the side; a drop of alcohol poured into the eye, and pouring a small stream of water on the face. Aloes and salt insinuated into the mouth, have broken up a feigned paroxysm.† A few drops of hot water suddenly thrown on the legs, may also recover the individual.

It is denied that the peculiar appearance of the eye is *always* present in epileptics: it has been said to contract.‡ At all events, it is frequently difficult to ascertain its state correctly, and we must attend to other circumstances. If the hands of the real epileptic be forced open, they remain expanded; but the feigned will immediately close them again.§ The contractions also of various parts of the body always come on simultaneously in the real; nor is there any regular period in the return of the fits. Thus, Vaidy, a French surgeon, detected a case by stating to the individual that the real disease always came on in the morning. He swallowed the bait, and the attack always occurred before noon.||

* De Haen's *Ratio Medendi*, vol. ii. p. 56, etc.

† Mr. Marshall mentions that a few drops of croton oil were introduced through an opening left by the loss of two teeth, and in a few minutes the pretended epileptic started on his feet and ran to the water-closet.

‡ *Medico-Chirurgical Review*, vol. iv. p. 598. The impostor cannot, however, render his eyes altogether insensible to light, and if narrowly watched, he will be found to open them occasionally, so as to observe the effect produced on those around him. (MARSHALL.)

§ Marc.; Orfila's *Leçons*, vol. i. p. 414.

|| Marshall, p. 178.

One fact should be kept in mind respecting this disease: The real epileptic is desirous of concealing his situation, and attaches to it a kind of false shame; while the feigned talks about the disease, and takes no precaution to avoid publicity.*

[As epilepsy is often successfully feigned; as it is not always possible to determine satisfactorily the condition of the pupil during the paroxysm; and as the value of the tests for insensibility depends partly upon the period of the fit in which they are applied, a few additional diagnostic signs may not be superfluous. In the feigned, the glottis is not closed, and respiration though impeded is not interrupted, nor does the face become so swollen and livid as in the real—symptoms which cannot be simulated unless with the aid of a ligature round the neck. Simulators cannot feign the general paleness which suddenly occurs at the end of the fit. (*Aide Mémoire.*) Marshall says, “the *liability* to epilepsy is not characterized by any external marks;” and Henderson expresses the same opinion. Most authorities, however, agree that the *frequent repetition of the attacks* gives a peculiar physiognomy, tersely described as “composed of sadness, shame, stupidity and timidity.” (*Dict. des. Sci. Med.*) Epilepsy rarely occurs for the first time, after puberty, unless it be the result of injury of the head.—R. H. C.]

CONVULSIONS, when feigned, do not present that stiffness of the muscles, or that resistance and rapidity of action, which appear in the real. The treatment must be similar to that of epilepsy. Twenty years ago, says Foderé, I proved, by the aid of fire and force applied to the antagonist muscles, that a woman, who had imposed on a good curate in the Alps, was an impostor. She was supposed to be possessed—fell down apparently without sense, and made frightful contortions.

* Dumas, of Montpellier, in his work on the *Physiognomy peculiar to some chronic diseases*, mentions, that in constitutional epileptics, the facial angle is always under 80°, and recedes from that to 70°. He found this to be the case in many instances at the hospital in Toulouse. (*London Medical and Physical Journal*, vol. xxvii. p. 38.)

She could not, however, withstand the above tests, and rose up, to her great confusion, and the astonishment of the spectators.* In feigned cases, the muscles do not stiffen and contract as in real ones. Hence, continued action of the antagonist ones will develop the fraud.

Feigned convulsive action, confined to a particular part, may be exposed by protracted watching. A seaman pretended to have a convulsive motion of the muscles about the neck and upper part of the trunk, so as to produce an involuntary and incessant shrugging of the shoulders. The surgeon set a watch upon him; a mark being made for each shrug. He held out nearly twenty-four hours, and then succumbed.†

The following case is reported by Dr. Marshall Hall.‡ A young person of hysteric disposition was bled, and soon afterwards became affected with contraction of the fingers into the palm of the hand. Under the idea that the nerve had been wounded, the cicatrix left by the venesection was removed; the spasmodic action of the fingers immediately became relaxed, and their use was restored. By degrees, the spasm returned, and the operation was repeated with the same good effect, less prompt but not less perfect than before. The spasm returned a third time.

Dr. Hall now began to suspect that even this strange degree of spasm, during which the nails actually grew into the palm of the hand, was not altogether real. A mock operation was therefore performed; painful incisions were made, the division of a nerve pretended, and it was loudly said, "Now the spasm will cease, and she will open her hand;" and she did open her hand; and when informed of the truth, took care to remain well.

CHOREA is sometimes attempted by mendicants. It would

* Foderé, vol. ii. p. 468.

† Edinburgh Medical and Surgical Journal, vol. xxx. p. 179. A somewhat similar case occurred to Dr. Elliotson; *Lancet*, N. S. vol. vii. p. 273.

‡ See *Med.-Chir. Review*, N. S. vol. i. p. 385, for a report in detail of this case.

tend to discover the reality of the disease, if we applied the suggestion of Darwin—forcing them to make continued and repeated efforts to move the limb in the designed direction. They should be secretly watched.

CATALEPSY would most probably seem to be a form of hysteria: at least, this will best explain most of the cases now occurring.* Its peculiar characteristics are, that the patient becomes suddenly motionless, while the joints remain flexible, and yet external objects make no impression. In so mysterious a disease, if there be any cause for suspicion, the remedies already indicated should be applied. Dr. Gooch quotes the following feigned case from Mr. Abernethy's Hunterian Oration:—

“A patient in the hospital feigned to be afflicted with catalepsy;—in which disorder it is said a person loses all consciousness and volition, yet remains in the very attitude in which he was suddenly seized with this temporary suspension of the intellectual faculties;—Mr. John Hunter began to comment before the surrounding students on the strangeness of the latter circumstance: and as the man stood with his hand a little elevated and extended, he said, ‘You see, gentlemen,

* The following references to some cases may assist in forming an opinion :
Memoirs of Literature, vol. iii. pp. 100, 194. Cases by Deidier.

Medical Commentaries, vol. x. p. 242.

American Medical and Philosophical Register, vol. i.st p. 47. Case by Dr. Stearns.

Cyclopedia of Practical Medicine, Art. Catalepsy, by Dr. Joy.

Edinburgh Medical and Surgical Journal, vol. xxxix. p. 409.

Medico-Chirurgical Review, vol. viii. p. 201.

Lancet, N. S. vol. vi. p. 277. A case treated by Dr. Duncan, junior, in the Edinburgh Royal Infirmary.

Copland's Dictionary of Medicine, Art. Catalepsy.

Lancet, N. S. vol. xi. p. 532; vol. xvi. pp. 129, 443; vol. xvii. p. 23—cases by Mr. G. Burnett, Mr. Ellis, Dr. Hannay, and Dr. Kelso. Vol. xxii. p. 725, by Dr. Imray; vol. xxxii. p. 633, by Dr. Chowne.

American Journal Med. Sciences, vol. xxvi. p. 337. Case by Dr. Isaac Parrish.

Encyclographie des Sciences Medicales, June, 1842, (from Gazette Medicale.) Case by Dr. Duvard.

that the hand is supported merely in consequence of the muscles persevering in that action to which volition had excited them prior to the cataleptic seizure. I wonder,' continued he, 'what additional weight they would support;' and so saying, he slipped the noose of a cord round the wrist, and hung to the other end a small weight, which produced no alteration in the position of the hand. Then, after a short time, with a pair of scissors he imperceptibly snipped the cord. The weight fell to the ground, and the hand was suddenly raised in the air, by the increased effort which volition had excited for the support of the increased weight. Thus was it manifested that the man possessed consciousness and volition, and the imposture stood revealed."*

[I have seen two cases of this rare disease. In one, a man, it depended upon organic disease of the brain, which soon proved fatal; in the other, a woman, it followed severe hysterical convulsions, and was, strictly speaking, a cataleptic trance. In the first case, the paroxysm lasted two or three hours, the patient sitting upright, his body and limbs maintaining every position in which they were placed. In the second, the condition lasted three days, during which the woman appeared insensible, took no food, and had no evacuation except a little urine by the catheter. The respiration was not perceptible; the pulse barely so, on careful examination. Her eyes were open and expressionless; the pupil contracted imperfectly; the eyelids remained immovable. The limbs, when raised, fell unresisting. The paroxysm arose from her aversion to myself, as the successor in the hospital of a physician who had attended her for syphilitic ulcerations of the os uteri, and it was terminated by his reappearance at her bedside.—R. H. C.]

FEIGNED SYNCOPE AND HYSTERIA cannot resist the action of sternutatories. It is difficult to dissemble a small, feeble and languishing pulse, an almost suppressed respiration, cold

* Transactions of the London College of Physicians, vol. vi. p. 272.

sweats, coldness of the extremities, and paleness of the countenance. Cases are, however, mentioned, where individuals have possessed the power of suspending, or at least moderating, the action of the heart; as, on the contrary, some have been able to increase it at will. Dr. Cleghorn, of Glasgow, mentions, in his lectures, the case of a person whom he knew, who could feign death, and had so completely the power of moderating the action of the heart, that its pulsation could not be felt. This man, however, some years after, died suddenly.*

* Paris, Medical Jurisprudence, vol. i. p. 360; Male, p. 267; Hennen, p. 466. It must also be recollected that several of the complaints enumerated in this chapter, as hæmoptysis, gravel, etc., are feigned by hysterical females. See Laycock on Hysteria, in Edin. Med. and Surg. Journal, vol. l. p. 65.

“Some of the shapes assumed by this pathological Proteus are hideous and disgusting. Paralysis of the muscular fibres of the bladder, or spasm of its sphincters, sometimes really occurs; sometimes it is only aped, in hysteria. It is a common trick with these patients to pretend that they labor under *retention of urine*, and that, although the bladder is full, they cannot make water. The daily introduction of the catheter, by a dresser or apprentice, appears to gratify their morbid or prurient feelings. Sometimes, no doubt, the difficulty is real, but it is oftener feigned or exaggerated. I have again and again known it disappear upon the patient's being left, without pity, to her own resources. But girls have been known to drink their urine, in order to conceal the fact of their having been obliged and able to void it. The state of mind evinced by many of these hysterical young persons is such as to entitle them to our deepest commiseration. The deceptive appearances displayed in the bodily functions and feelings find their counterpart in the mental. The patients are deceitful, perverse and obstinate, practicing or attempting to practice the most aimless and unnatural impositions. They will produce fragments of common gravel, and assert that these were voided with the urine, or they will secrete cinders and stones in the vagina, and pretend to be suffering under some calculous disease. A young woman contrived, in one of our hospitals, to make the surgeons believe that she had *stone in the bladder*, and she actually submitted to be placed on the operating table, and to be tied up in the posture for lithotomy, before a theatre full of students, and then the imposture was detected. Sometimes they simulate *suppression of urine*, and after swallowing what they have passed, vomit it up again, to induce the belief that the secretion has taken place through a new and unnatural channel.” (*Dr. Watson's Lectures on the Practice of Medicine, in Lond. Med. Gaz., vol. xxviii. p. 457.*)

[Syncope is sometimes feigned by soldiers to escape from, or lessen corporal punishment. It is to be remembered that the syncope may be real, though sternutatories and cold affusion produce their usual effects.

Hysteria, whether real or factitious, assumes the form and imitates the symptoms of a great variety of diseases, especially those characterized by disordered nervous or muscular action, and which are calculated to excite interest or sympathy. In some, the severest forms of hysterical convulsion may be brought on by a mere effort of will, but when so induced, cannot be always self-controlled. The following example is deemed sufficiently remarkable to be recorded. In 1839, a very beautiful girl, aged fourteen, confined in the city prison, charged with theft, was transferred to the Bellevue Hospital on account of convulsions which baffled the skill of the physician. When admitted, she was apparently in a trance, and insensible to ordinary sounds or pinching; her eyes were open and gazing on vacancy. Failing to obtain the least sign of consciousness in the presence of spectators, I sent all away, and then telling her I knew she heard me, assured her of kind treatment if she ceased pretending, and threatened to remand her to prison if she persisted. She instantly *looked at me*, and *said* she believed I would do as I promised. The nurse having reported that there were no signs of puberty, and that the girl had never menstruated, medicines were given to excite that function, and it was soon established. After a time she was sent back to prison, when her convulsions returned with greater severity than before, and in one of them her clothing and bedding caught fire, burning her left breast, side, and arm very extensively and severely. She was again sent to the hospital, where for some months the appearance of a police officer was the signal for a convulsion closely resembling the epileptic seizure, and so severe that days would elapse before the effects would be entirely relieved. Sentenced to confinement in the House of Refuge, the convulsions were again renewed. Her luxuriant hair, in which she took great pride, was cut off, her head was shaved, her

body cupped and blistered, and nauseous and distasteful medicines freely administered; all without effect. The patience of the physician, and the strength of the attendants were exhausted. She was once more sent to my ward at Bellevue, where she confessed that her convulsions were intentionally produced as her only means of escape from the House of Refuge, but that they sometimes passed beyond her control. On consultation with the authorities, Dr. Vaché, the Resident Physician, certified that the girl had a monomania, and she was committed to the Asylum for Lunatics on Blackwell's Island, where she was employed as assistant to the matron. This certificate was based upon her passion for *stealing*, in which she exhibited an adroitness and degree of turpitude truly astonishing. For some time previous to her arrest, she was in the habit of applying at houses of ill-fame for a night's lodging, saying, with assumed artlessness, that the boat had left her, that she was alone, and that a gentleman had directed her there. Admitted, she would remain till opportunity offered for stealing money or jewels, and then decamp. While in the hospital, she would secrete the instruments used in dressing her burns, and even take rings from the fingers of dying patients. In a few months after her commitment, she escaped from the asylum, and, it is believed, went to Europe as the mistress of a defaulting financier.—R. H. C.]

INSENSIBILITY; SOMNOLENCY.—There are several cases on record, of the long continuance of these states; some of which were feigned, and others, to say the least, doubtful in their nature. Dr. G. Smith makes mention of a soldier named Drake, who assumed an appearance of total insensibility, and resisted for months every sort of treatment—even the shower bath and electricity; but on a proposal being uttered in his hearing, to apply red-hot iron, his pulse rose, and an amendment shortly took place.*

* Smith, p. 471; Edinburgh Annual Register, vol. ix. part 2, p. 49. Dr. James Johnson says that he detected the imposture of Drake on the day he was landed at Portsmouth, by attempting to introduce a piece of aloes into

The case of Phineas Adams, which lately occurred in England, shows to what individuals will submit, in order to escape punishment. He was a soldier in the Somerset militia, aged eighteen years, and confined in jail for desertion. From the 26th of April to the 8th of July, 1811, he lay in a state of insensibility, resisting every remedy, such as thrusting snuff up the nostrils, electric shocks, powerful medicines, etc. When any of his limbs were raised, they fell with the leaden weight of total inanimation. His eyes were closed, and his countenance extremely pale; but his respiration continued free, and his pulse was of a healthy tone. The sustenance he received was eggs diluted with wine, and occasionally tea, which he sucked in through his teeth, as all attempts to open his mouth were fruitless. Pins were thrust under his finger nails to excite sensation, but in vain. It was conjectured that the present illness might be owing to a fall; and a proposal was consequently made by the surgeon to perform the operation of scalping, in order to ascertain whether there was not a depression of the brain. The operation was described by him to the parents at the bedside of their son, and it was performed; the incisions were made, the scalp drawn up, and the head examined. During all this time he manifested no audible sign of pain or sensibility, except when the instrument with which the head was scraped, was applied. He then, but only once, uttered a groan. As no beneficial result appeared, and as the case seemed hopeless, a discharge was obtained, and he was taken to the house of his father. The next day he was seen sitting at the door talking to his parents; and the day after, was observed at two miles from home, cutting spars, carrying

his mouth: he felt the resistance of the muscles. (*Medico-Chirurgical Review*, vol. iv. p. 598.)

“So well did this man acquit himself, that after he was removed to the York Hospital, many of the medical men were then, and still are, of opinion that the disease was real. I attended him at Hillsea, along with Dr. Hennen and Dr. Knox, now of Edinburgh, who had the immediate charge of him; and from everything I saw, and many experiments I made, I have not the slightest doubt that he was an impostor.” (DUNLOP.)

reeds up a ladder, and assisting his father in thatching a rick.*

Mr. Dease states a case where a female servant, on receiving a slight injury from her master, ran to the door, said she had been almost murdered, and, to corroborate it, fell into a fit. She was carried to a hospital, and lay for ten or twelve days without showing the least sign of sense or recollection. Mr. Dease, on being called into consultation, soon detected the imposture, and the woman almost immediately disappeared. But popular indignation had nearly ruined the individual in property, and consigned him for a time to a jail.

HYDROPHOBIA has been attempted to be feigned both in England and France, but with little success.† And I have seen it stated in an extract from the *United Service Journal*, that a beggar once attempted TETANUS at St. Bartholomew's Hospital. Mr. Abernethy, however, suspected the imposition; and, turning to one of the surgeons, as if in consultation, remarked what a remarkable symptom, in the last stage of this disease, incessant winking of the eyes was. The patient immediately began to wink with both his eyes.

[Hydrophobia and some forms of tetanus are not infrequently simulated by hysterical women. I believe that *all* the cases of hydrophobia reported cured, are of this character. I have the authority of Dr. Vaché for saying that Dr. Mott had been so frequently consulted in cases pronounced hydrophobia, which were either tetanus or hysteria, that he for many years doubted the existence of that terrible disease. In tetanus, muscular rigidity continues after the subsidence of the paroxysm.—R. H. C.]

* Edinburgh Annual Register, vol. iv. part 2, p. 159. A remarkable case, about which there appears to be some doubt, is related by Dr. Hennen, p. 458. The *approach* (*not the touch*) of a hot iron caused abundant marks of sensibility.

† Orfila, *Leçons*, vol. i. p. 425; *Medico-Chirurgical Review*, vol. ix. p. 261.

NOSTALGIA is a disease common in military hospitals. This mental affection, if carried to excess, soon produces a physical one, and a mixed state is produced, in which all the marks of melancholy and hypochondriasis are visible. Young men are more subject to it than persons advanced in life, villagers more than citizens; and among nations it is found to prevail most in the Swiss, the Savoyards, the inhabitants of the Pyrenees, the Flemings, etc. Besides the above considerations, and that alteration of countenance which it is impossible to feign, it may be added, that "pretenders generally express a great desire to revisit their native country, while those who are really diseased are taciturn, express themselves obscurely on the subject of their malady, dare not make an avowal, and are little affected by the consolations which hope or promises offer to them."* The healthy color, the strength and regularity of the pulse, and the aversion to low diet and setons, also serve to distinguish the one from the other.†

SCROFULA has been simulated by exciting ulcers in the neck, and redness and swelling of the nose and lips, with euphorbium or other acrid substances. Cicatrices from these have been exhibited. The scrofulous ulcer cannot, however, be imitated. SCURVY also was feigned by the French conscripts; but they could not advance further than a bleeding state of the gums, induced by potash, etc.‡ Various *cutaneous affections*, as *tinea capitis*, *pompholyx*, etc., have been produced by the application of nitric acid or blisters.

INCONTINENCE OF URINE.—Two deserters were brought to

* Foderé, vol. ii. p. 463.

† Orfila, Leçons, vol. i. p. 412. "The only two cases of nostalgia I ever happened to meet with do not bear out the general remark, that an inhabitant of a hill country, or a village, exclusively, is liable to this disease. The first was a recruit, a country lad from the fens of Lincolnshire, who died under my charge, on his passage to Canada, in 1813; and the other, a London pickpocket, whom I saw this year (1824) in the hulks at Sheerness." (DUNLOP.)

‡ Orfila, Leçons, vol. i. p. 426.

the hospital at Martigues, on account of this disease. Foderé was the attending physician, and applied epispastics to the perinaeum—a remedy which he in previous cases had found useful—but without success. They were discharged; but it was shortly discovered that they had feigned the disease. The consequence was an epidemic incontinence of urine among their companions who remained. This awakened the suspicion of our author; and above all surprised that his remedy produced no effect in any case, he ordered that the penis of every patient should be tied, and on the knot a seal placed, which none but the gendarme who guarded them should have power to break, at such times as they wished to urinate. He charged the guard to visit them from time to time, to observe whether the penis was inflated, and also whether the urine was not discharged *guttatim*. He did this from having observed that in real incontinence of urine the penis becomes enlarged, so as to render it necessary to remove the ligature in a very short time. The expedient succeeded; it was removed only at the ordinary period, and in twenty-four hours the epidemic vanished.*

Dr. Hennen observes that this disease is almost always detected by giving a full dose of opium at night, without the knowledge of the individual, and introducing the catheter during sleep; or by taking him by surprise during the day, and introducing the same instrument, when it will be found that the urine has not drained off *guttatim* as it was secreted, but that the bladder possesses the power of retention.† Dr.

* Foderé, vol. ii. p. 481.

† Hennen's Principles of Military Surgery, p. 455. In a very interesting inaugural dissertation on feigned diseases, published by Dr. Blatchford in 1817, it is stated that *suppression of urine* was a frequent disease among the female convicts at the New York State Prison. The author, who was the Resident Physician there for some time, relates two cases, in which the frequent use of the catheter obviated all the evil effects that a *voluntary* suppression might have produced, and also indicated when the complaints of pain and distress were groundless. (Pages 71 and 74.) By reference to old registers, he found that this was a common complaint immediately after the initiation of every "Resident Physician."

Comyns cured its epidemic appearance in an Irish regiment, by prescribing a cold bath every morning and evening in Lough Neagh.* In ordinary practice, it is a very rare disease. The prepuce and glans penis are found to be pale from its continuance, and the clothes exhale an ammoniacal odor.

[These observations are especially applicable to true incontinence of urine from paralysis of the sphincter; but incontinence may also arise from a highly irritated bladder or sphincter, making the presence of urine intolerable. In such cases, opium favors retention. A partial paralysis of the sphincter, or of the bladder, will admit of more or less retention, especially in the recumbent posture. Enuresis in soldiers most frequently arises from exhausted muscular contractility consequent upon stricture. The disease is often feigned. If real, the glans is not only pale, but also shriveled and moist, and if wiped dry, the urine will soon be seen to flow drop by drop, *without* the action of the abdominal muscles; it is generally pale, contains mucus, and decomposes speedily; the scrotum and thighs are usually excoriated; the general health enfeebled. An impostor will sometimes yield upon the application of the moxa, or actual cautery, but it is, perhaps, more humane to give him an urinal and send him to duty, as is done in the Austrian army.—R. H. C.]

GONORRHOEA has been imitated by soldiers, with caustics applied to the prepuce.† STRICTURE also would seem to be a complaint with naval officers who wish to leave their ship. Dr. Hutchison detected several, by engaging them in conversation, while he succeeded in introducing the bougie.

EXCRETION OF CALCULI.—Chemistry and the microscope supply us with the means of ascertaining when this is feigned. They disclose the characters which designate their origin.‡ A

* Cheyne, p. 150.

† Dr. De Brus; American Journal of Medical Sciences, vol. i. p. 378.

‡ "Dr. Thomson, of Edinburgh, while a young man, as a chemical experiment, examined some of the sand which a woman alleged she had passed

physician was consulted by the friends of a young lady of high respectability, concerning a very painful disease to which she was subjected. She was said to be frequently ill, and during the attack, to void, with agonizing pain, concretions in her urine. A certain number of these being discharged, she felt relief. A parcel of these urinary concretions was handed to a physician, who instituted experiments on them, and found, what indeed was obvious on inspection, that they were nothing but common sand and pebble stones. Of these, it was asserted, she had excreted not less than several pint measures in the course of two or three years. No motives were assigned for this extraordinary conduct.*

Mr. James Wilson mentions a case where pieces of slate had been introduced into the urethra of a boy, and a request was then made to perform the operation of lithotomy. The object, he imagines, was to excite commiseration, and thus obtain money, or possibly to extort it from the surgeon, had he seriously attempted any operation.†

Dr. Elliotson speaks of a woman who showed sundry concretions which she stated had been passed with the urine, and gave her great pain. They were found to be solely carbonate

from her bladder, and found micaceous particles in it, which put an end to the imposture. A poor woman in the Glasgow Infirmary, who was less of a geologist than her compeer, used pounded coals for a similar purpose." (DUNLOP.)

* Edinburgh Medical and Surgical Journal, vol. vii. p. 488.

† Wilson's Lectures on the Urinary and Genital Organs, p. 183. There are many similar cases: One by Dr. Livingstone, of Aberdeen, where stones were found sticking in the vagina; Medical Commentaries, vol. iv. p. 452.—By Dr. Thomas Thomson, where he detected micaceous particles in the alleged gravel; Annals of Philosophy, vol. iv. p. 76.—By Sir Astley Cooper, of Mr. Cline, who was about operating on a female, but discovered that the body had not the hardness of stone, and finally drew from the vagina several pieces of coal; Lectures, vol. ii. p. 129.—By Dr. Elliotson, *Lancet*, N. S., vol. x. p. 135.—Pebbles have for a time been passed off as gall-stones; *Medico-Chirurgical Review*, vol. xxii. p. 231.—By Dr. F. H. Ramsbotham, of a female, pretending to discharge pieces of common chalk by the urethra; *London Medical Gazette*, xvi. 615.—By Sir Benj. Brodie; *Lectures in Medical Times*, Jan. 20, 1844.—By Dr. Christison, mentioned in Dr. Golding Bird's work on Urinary Deposits, p. 213.

of lime, (a rare constituent of urinary calculi;) and on being shown to Dr. Wollaston, he ascertained, by a lens, that they were the backbones of sprats.* Soldiers have frequently taken scrapings from the wall, or a stone, and mixed it with their urine.

MYOPIA OR NEAR-SIGHTEDNESS.—“It is curious to observe,” says Foderé, “how many young men have, during the last twenty years, worn convex glasses, in order to acquire this disease, which, however, is not the certain consequence, but more commonly this practice leaves a weakened and defective sight, differing from it, and also from that which is the effect of old age. It is not from an inspection of the eye, nor from the account of the individual, that we can judge concerning the reality of the complaint; but it may be ascertained by presenting an open book, and applying the leaf close to the nose, or by putting on glasses proper for near-sighted persons. If the individual cannot read the book distinctly when placed thus, or when the above glasses are used, we may feel confident that his disease is feigned.”† This mode of examination should be strictly adhered to; since, so far as my observation has extended, no complaint is more frequently urged, by those who wish to avoid military duty, than near-sightedness.

[As persons have designedly accustomed themselves to the use of glasses, and to reading books held close to their eyes, the following additional symptoms of myopia are enumerated. The near-sighted do not look at, but listen to the person with whom they converse; in reading, they hold the book obliquely

* London Medical Gazette, vol. vii. p. 239. Silicious matter, in very minute quantities, has been found in gravel by Dr. Venables, and by other chemists. (*Journal of the Royal Institution*, vol. ii. p. 256.) The most remarkable case, however, is that given in the *Edinburgh Medical and Surgical Journal*, (vol. xli. p. 127,) by Dr. Hill, of Greenock. Several minute calculi were passed, which Dr. William Gregory ascertained, by chemical experiment, to consist of silica solely.

† Foderé, vol. ii. p. 480. “There was a young French surgeon in Edinburgh in the year 1819, who was naturally short-sighted, but not sufficiently so to excuse him from military duty. He avoided the conscription, however, by habituating himself to read with a book close to his eyes.” (DUNLOP.)

toward their eyes, which are prominent, and the cornea preternaturally convex; they see further and more distinctly in a strong than in a faint light; they write a small hand, and prefer to read small type, because they can see more letters at once; they can read small print in a light insufficient for the ordinary eye to make out large letters; in attempting to write a large hand they misshape the letters. (*Mackenzie, Gavin.*)—R. H. C.]

OPHTHALMIA has often been artificially excited by the application of various stimulant remedies. It is, however, detected by the rapidity of its progress. *It arrives at its acme within a few hours after the application of the acrid substance.* Some information may also be derived from noticing which eye is affected. A few years since, when an extensive system of deception prevailed in the British 28th Regiment of foot, Dr. Vetch observed that the counterfeit inflammation was almost solely confined to the right eye;* [the most important to a soldier, as with it he takes aim.—R. H. C.] A left-handed man would probably inflict the injury on the left eye.†

No disease has been more extensively feigned than this, both in the English and French armies. Twelve per cent. of the inefficient conscripts belonging to the department of the Seine, were rejected from this cause;‡ and several hundred men, in various British regiments, have been afflicted at one time.§ The articles principally used have been salt, sulphate of copper, corrosive sublimate, cantharides, alum, tobacco-juice, lime, and nitric acid.|| Sometimes the progress of the epidemic was stopped by removing numbers, in a state of nudity, to a new ward. They could not carry these articles with them.

* Edinburgh Medical and Surgical Journal, vol. iv. p. 158. The suggestion of Mr. Mackenzie is also deserving of attention. It is quite suspicious, if, in a prevalent ophthalmia, the privates almost exclusively are affected, while the commissioned officers, or the women and children, escape.

† Hennen, p. 465.

‡ Scott, p. 148.

§ Edinburgh Medical and Surgical Journal, vol. xxxviii. p. 139; Scott, Cheyne, etc.

|| Cheyne, p. 130.

But the most efficient remedy appears to have been the alteration of the pension regulations. They ordained that no soldier should be discharged for the loss of one eye only. Dr. Hutchison found it necessary, in some instances, to put on the strait-waistcoat, and thus prevent the hands from doing injury.

Dr. Villards, a French writer on the diseases of the eye, states that he knows a physician who had made an enormous fortune by producing, artificially, *specks on the cornea*, in young persons liable to be drawn into the military service.*

That species of BLINDNESS which originates from AMAUROSIS, is strongly characterized by the dilated and fixed pupil. There are, however, cases in which the pupil retains some contractile power, although we know the sight to be lost. In such an instance, epispastics and setons are proper; and if suspicion exists, the patient should be watched, to see whether he does not avoid obstacles put in his way. If this be carefully pursued, the deceit is often detected. The following case, however, occurred to Mahon: A young conscript was sent to the corps blockading Luxemburg. Having passed the night at the advanced posts, he, on the next morning, declared himself blind, and was sent to the hospital. The surgeons used the most powerful remedies, and were convinced that the disease was feigned, as the pupil contracted perfectly. He assured them, however, that he could not see; thanked them for their care of him, and asked for the application of new remedies. He was sent to the superior medical officers at Thionville. They also were convinced that it was a fraud; but having learnt the course that had been pursued, they determined on a last trial. He was put on the bank of a river, and ordered to walk forward. He did so, and fell into the water, from which, however, he was immediately taken by two boatmen stationed for that purpose. Convinced of his blindness, but unable to explain the dilatation and contraction of the pupil, the surgeon gave him a discharge, but warned him, at the same time, that if his disease were feigned, it would

* British and Foreign Med. Review, vol. x. p. 25.

prove of no avail, as it would sooner or later be ascertained that he was not blind. They offered him another if he would confess the fraud. He hesitated at first, but being at length assured that they would keep their word, he took up a book and read.* “The proof in this case,” says Foderé, “would have been complete, if, instead of a river, he had been put on the edge of a precipice, where he might see that nothing could prevent his destruction—but *what if he had been really blind?*”

A dilated pupil and inactive iris, the common characteristics of amaurosis, have been produced by the application of the extract of belladonna or hyoscyamus to the skin around the eye; and above two hundred conscripts in France succeeded, by this means, in being declared amaurotic. Dr. Marshall has also seen these effects temporarily produced by infusing the leaf of the *Datura metel* into a man's food. The eye is, however, more or less red from local applications, and we should also remember that their effects are temporary.† But in real amaurosis, the dilatation seldom totally disappears.‡

NYCTALOPIA (night-blindness) was much feigned by the soldiers in the expedition to Egypt under Sir Ralph Abercrombie. It was difficult to detect it, as the disease in that country is epidemic. All inconvenience was, however, obviated by joining a blind man with a seeing one in the works; and when the sentries were doubled, a similar arrangement was made—hearing being often more important on an outpost than seeing.§

[Ophthalmia may become suddenly general among troops on marches over dry, windy, and sunny plains; or who are scorbutic or cachectic from imperfect diet, or ill-ventilated barracks. Purulent ophthalmia has been intentionally produced with gonorrhœal matter. In factitious ophthalmia one eye is affected, in the real, both; the exceptions being, according to

* Mahon, vol. i. p. 360.

† Marshall, p. 112. The effects of henbane do not last, according to Orfila, beyond twenty-four hours; and those of belladonna, beyond six.

‡ Devergie, vol. ii. p. 914.

§ Cheyne, p. 146.

Dr. Vetch, six in one thousand. In the artificial, the eyelids are not proportionally affected, and remedies do no good until vision is impaired or lost, when, contrary to the real, the disease subsides speedily, or is easily cured.

Amaurosis is also simulated by introducing a mixture of snuff and belladonna into the nose, (*Gavin*.) or by belladonna, or hyoscyamus taken internally, in which latter mode the effects may continue for days. If the pupil "retain some contractile power," examine with the sound eye closed, when it will remain motionless and dilated, except in very rare cases, in which the blindness depends upon a disease of a particular part of the brain. (*Mackenzie*.) Fallot detected one who had so disciplined himself as to prevent any manifestations of sight, by placing one hand over the heart, while with the other he pretended to pierce the eye with a sharp instrument. The eyelids did not move, but the heart palpitated. It is difficult to simulate the peculiar, vacant, expressionless stare of confirmed amaurosis.—R. H. C.]

PRETENDED DEAFNESS may be detected by making a noise at a moment least expected. This excites a sensation which it is difficult to conceal. Acute persons will also always find some mode of ascertaining the truth. A deserter, condemned to labor on the canal at Arles, said he was deaf, and passed for such with his comrades and guards. Being brought before the inspector to be examined, he appeared such as he stated, until Foderé spoke to him in a low voice, saying, "You cannot persuade me that you are deaf; but if you will confess the truth, you shall have your discharge." To the astonishment of all, he answered, "Very well; I am not deaf."* Again, a conscript stated that he was deaf. The general who visited for the purpose of examination, let fall a piece of silver behind him. The deaf person turned his head round toward the place from which the noise proceeded, and by this means was detected.†

* Foderé, vol. ii. p. 475.

† Belloc, p. 252.

"Who would believe," says Baron Percy, "that by exercise, some young men have so successfully affected deafness, that a fire of musketry exploding suddenly at their side could not draw from them the least mark of fear or surprise?" "I knew one, however," he adds, "who betrayed himself at last before his judges, at the sound of a small piece of money designedly dropped on his foot, while it was whispered, in his hearing, that he was surely going to be discharged."*

Deafness cannot long be present, without producing a peculiar cast of countenance. It also, in real cases, comes on vastly slower than with the simulated.†

Some of the French conscripts excited diseases of the ear, and particularly fetid discharges, by introducing blistering plaster, peas, and other substances into it.

Those who pretend to be DEAF AND DUMB, have a still more arduous part to play, and need an art and perseverance of which few are capable. Such who are really in that unhappy

* New York Medical Repository, vol. xvii. p. 359.

† "In the York Hospital, we had a soldier who feigned deafness so well that firing a pistol at his ear produced no effect. We tried the experiment after he had been put to sleep by opium, and he started out of bed." (DUNLOP.)

Mr. Marshall, in his last work on the Enlisting and Discharging of Soldiers, has some capital narratives of the detection of simulated deafness, one of which I extract: "A recruit from Cork, who joined the depot of the East India Company at Chatham, alleged that he had almost totally lost the sense of hearing, and the testimony of his comrades from Ireland served to support his statement. Dr. Davies, surgeon to the depot, admitted him into the hospital and put him upon spoon diet. For nine days, Dr. Davies passed his bed during his daily visit to the hospital, without seeming to notice him. On the tenth day, he felt his pulse and made signs to him to put out his tongue; he then asked the hospital sergeant what diet he gave the man. *Spoon diet*, replied the sergeant. The doctor affected to be displeased, and in a low voice said, are you not ashamed of yourself? the poor fellow is almost starved to death. Let him instantly have a beef-steak and a pint of porter. The recruit could contain himself no longer. With a countenance expressive of gladness and gratitude, he addressed Dr. Davies by saying, God Almighty bless your honor; you are the best gentleman I have seen for many a day."

situation, acquire a physiognomy and certain gestures which it is difficult to assume, and which it is impossible to prepare for every examination that may be made. In reviewing the histories of those pretending deafness and dumbness, it has been found, says Foderé, that women have been the most successful; and the sex fondest of talking, are the most capable of feigning dumbness.

The Abbé De L'Epée was deceived by a pretended deaf and dumb person, who feigned to be the son of Count De Solar. Sicard, however, his successor, was more fortunate in detecting the villainy of another, whose ingenuity resisted, for four years, an infinite number of investigations made on him in France, Germany, Switzerland, Spain, and Italy. This young man was named *Victor Foy*, and was from Luzarche, six leagues from Paris; but called himself *Victor Travanait*—traveling, as he said, in search of his father, but in reality to avoid military duty.

He was imprisoned in various countries, watched closely, and examined most rigidly, without being detected. So perfectly indeed had he accustomed himself to his part, that when he avowed the fraud, to use his own expression, he had unlearned how to hear. In Switzerland, he was tempted by a young and beautiful woman, who offered him her hand, but without effect. In the prison at Rochelle, the turnkey was ordered to sleep with him, to watch, and never to quit him. He was repeatedly awakened in a violent manner, but his fright was expressed by a plaintive noise, and in his dreams guttural sounds alone were heard; and the hundred prisoners, who were all ordered to detect him if possible, could discover nothing from which they could imagine deceit. At last the officer charged with the police of the prison became satisfied, after many examinations, that he was really deaf and dumb, and declared this in the public journals, so as to obtain his liberty. Victor, unhappily, at this period, went beyond his capacity. He stated himself in writing to be an *élève* of the Abbé Sicard. This ingenious and worthy individual denied the fact without seeing him, and proved it from the writing.

"I cannot tell," said he in a letter to the Counselor of State, Real, "whether this person, confined at Rochelle, be really Victor Travanait, or not; but I can say positively that he was not born deaf and dumb." The reason which he assigned for this opinion was, that he wrote from sound, while the deaf and dumb write only as they see. In his letters, he appeared so ignorant as to divide some words, and annex prepositions to others as if they were constituent parts. The following extract will serve as a specimen: "*Je jur de vandieux; ma mer et né en Nautriche; quhonduit (pour conduit;) essepoise (pour espoir;) torre (pour tort;) ru S. Honoret; jai tas present (pour j'étais présent;) jean porte en core les marque (pour j'en porte encore les marques.)*" It will be observed that, in this letter, Victor uses *q* instead of *c*; and from this Sicard inferred that he had heard, and knew that the sound of these gutturals was similar. He concluded by stating his conviction that Victor was not born deaf, and of course was not dumb.

The criminal was now brought to the institution for the deaf and dumb at Paris, and placed before the black-board. He was ordered to write answers to questions put to him by Sicard, which he did in so able a manner, and eluded the most embarrassing questions so ingeniously, that nothing but his orthography could yet be adduced against him. Sicard had taught his pupils to articulate sounds, and he had done this by showing them the words, as it were, by the apparent effects of touches on a musical instrument, and then pressing their arms more or less strongly. During this operation, he obtains at pleasure the hard or soft consonant, which serves as a sign for the required articulation. Victor, when put to this proof, instead of the syllable *pa*, pronounced only the vowel *a*, and never uttered the labial consonant, which all the deaf and dumb easily articulate. He was then put to the last test. When asked how he had been instructed, he answered by signs, and promised to explain by them such words as they might write on the black-board, but could not do so. He was then placed among those who were really deaf and dumb, but understood nothing from them, nor could they comprehend

him. Frightened at this detection, and still more so at the threat he had heard, that he would be confronted with the pastry cook, to whom he had been an apprentice, he at last took up a book and read.*

It is an observation of the author from whom I have taken this case, that it was Victor's folly alone which detected him. Had he not asserted that he was a pupil of Sicard, he might have escaped. But he was ignorant that all were educated alike, and of course should express their ideas in a similar manner.†

If the tongue retain its muscular power and is otherwise healthy, and deafness is not present, the person pretending to be dumb is doubtless an impostor.‡ Orfila recommends

* Foderé, vol. ii. pp. 478-9. When Mr. Clerc, the distinguished teacher of the deaf and dumb at Hartford, visited Albany, he informed me that he was one of the pupils who assisted in detecting Victor.

† A case of pretended deafness and dumbness in this country, by a person named *James Stillwell*, was detected by Mr. Clerc in 1822. The imposture in this instance was, however, more clumsy than the one in the text. (See the *National Gazette*, September 14, 1822.) Other cases of pretended deafness and dumbness are related by Marshall, p. 156; and Cheyne, p. 143.

“Foderé says, that a good way to detect pretended deafness and dumbness is to say something deeply interesting to the patient in his presence, and mark the effect it produces on his countenance. Whether the *Great Unknown* had studied Foderé or not, it is impossible to determine, but he illustrates this admirably in *Peveril of the Peak*, where Fenella betrays herself on hearing that Julian is assassinated.” (DUNLOP.)

[A man who figured quite prominently at the North as a political speaker during a recent presidential campaign, imposed himself for some years upon the citizens of New Orleans, as one deaf and dumb. At length suspicion was excited, and as it was known he had very great antipathy to dogs, some one came unexpectedly behind him as he walked, and barked like an angry dog; whereupon he jumped, and called aloud for help.—R. H. C.]

‡ So say Percy and Laurent. This, however, has been questioned by Dr. Chowne, in consequence of a case that occurred in London in 1838. A policeman suddenly lost his voice—but he was not deaf. He could move his tongue perfectly. He was actively purged, and after three days his speech was as suddenly restored. Some physicians supposed him an impostor, but Dr. Burne, his medical attendant, doubts this. He deems it an “accidental dumbness.” (*London Med. Gazette*, vol. xxiii. pp. 312, 452.)

[A young gentleman, of delicate constitution and nervous temperament, was under my care in 1852, for total loss of voice, which continued eight or

that such should be made to sneeze and the sonorousness of the voice noticed.

STUTTERING AND STAMMERING, if the organs of speech were perfect, and the moral evidence of the previous existence of the infirmities not satisfactory, were treated by the French surgeons on the starvation plan, until the subjects of it called for their food without any hesitation in articulating.*

Fallot advises that they be made to repeat anything which they know by heart, as their prayers for example, or that they be requested to sing. The real sufferer will go through this without stammering; the person feigning, stutters on with many grimaces and distortions of the countenance.†

[The most common deformities are an enlarged tongue and mal-placed teeth. Contrary to the opinion which formerly obtained, the general belief now is, that a majority of stammerers have no *perceptible* defect in the organs of sound.—R. H. C.]

The number and variety of feigned diseases connected with TUMORS and ENLARGEMENTS, are really remarkable. The following can hardly be characterized, but it shows how much we ought to distrust that affectation of modesty which will not permit a complete investigation. A young female at Strasburg, from the enlargement of her abdomen had led the public to doubt the purity of her character. The distension continued so long as to dissipate the suspicion; and for thirty-nine years she continued to increase in bulk, and excited the commiseration and charity of all who saw her, in such a

ten days. Some companions arranged a mock duel, in which he was a principal. The young man made his will, repaired to the place of combat, and behaved manfully; but when it was announced that he had been hoaxed, his fortitude forsook him; he became hysterically convulsed, and speechless. The hysteria subsided in a few hours, but the loss of voice continued as above stated, though his written answers and cheerful manner showed he fully believed my assurance of speedy recovery. The motions of the tongue were not impaired.—R. H. C.]

* Marshall, p. 130.

† Fallot, p. 76.

manner as to lead a highly comfortable life. Her case excited the attention of the physicians and surgeons; and they waited with some impatience, until her death should develop the nature of this extraordinary disease. No tumor was found; but in her wardrobe was a sack or cushion weighing nineteen pounds, and so made as to fit the shape of the abdomen. This female would never allow a medical man to examine the seat of her pretended disease.*

Sauvages, in his *Nosology*, makes mention of a mendicant who gave to his child all the appearances of HYDROCEPHALUS, by opening the integuments of the head near the vertex, and then introducing air between them and the muscles. This infamous fraud was discovered by removing the patch which covered the hole and prevented the air from passing out. A mountebank at Brest produced similar inflations, together with the appearance of the most hideous deformity, in a child, by means of the introduction of air, and the application of ligatures on various parts of the body;† and not long since, a female in France by the same mode caused an EMPHYSEMA of the abdominal parietes, so as to resemble dropsy.‡ Tumors of this nature are readily produced, since the cellular texture is spread over the whole surface of the body, and the air may be introduced through the smallest possible aperture. We must, however, recollect that dropsy, hydrocephalus, and emphysema are marked by stronger and more conclusive symptoms than the mere existence of tumor. A French conscript is said by Beaupré to have excited ASCITES, by injecting water into the cavity of the abdomen.§ ANASARCA of the lower extremities has been pretended by means of ligatures.

In 1811, thirty or forty soldiers were admitted into the hospital at Dublin, for, as was stated, DROPSY and INTERMITTENT FEVER. The abdomen was greatly distended and tympanitic, and they complained of great thirst; but the tongue

* Mahon, vol. i. p. 362, from the *Acta Naturæ Curiosorum*.

† Foderé, vol. ii. p. 485, quoted from the *Bulletin of the Society of Emulation*.

‡ Foderé, *ibid*.

§ Marshall, p. 153.

was clean, pulse regular, and urine natural. They were soon cured by the *mixtura diabolica*.* TYMPANITES of the stomach and enormous distension of the abdomen may also be induced by swallowing air. A French conscript had the power of thus inducing it, and Dr. Thomson in his lectures relates an instance.†

PHYSCONIA was also at one time very prevalent as a feigned disease in India, and supposed to have been caused by swallowing toddy, with large quantities of rice-water. Smart purgatives would often remove the disease in the afternoon, but in the morning it frequently returned. Some would appear to have the power of simulating it, by elevating the spine at the loins, when placed on the back for examination.‡

A PROLAPSED RECTUM and UTERUS have each been imitated by means of a portion of animal intestine, in which a sponge filled with a mixture of blood and milk was placed. It was fixed into the vagina or rectum in such a manner that one of its extremities was left hanging out.§ POLYPUS OF THE NOSE was simulated, according to Percy, by introducing the testes of cocks, and hares' kidneys, into the nostrils:|| HYDATIDS OF THE UTERUS, by means of vesicles prepared from the intestines of a pig, and constructed so as to resemble a string of beads:¶ A MALIGNANT TUMOR of the same organ, by introducing a sponge.**

Even the BARBADOES LEG has been imitated by the long-continued use of ligatures. In a man sent home from India for a discharge, the thigh measured in circumference $22\frac{3}{4}$ inches, the calf of the leg $17\frac{1}{2}$, and the ankle 15 inches. In

* Cheyne, p. 169.

† Vide Lancet, N. S., vol. xix. p. 804.

‡ Marshall, pp. 151, 152.

§ Mahon, vol. i. p. 357. || Scott, p. 151.

¶ Ibid. p. 142. Detected by Professor John Thomson in Edinburgh.

** Medico-Chirurgical Review, vol. xxi. p. 153. Detected by Mr. Lawrence in London.

SIX days after the removal of the ligature, the thigh had decreased to 20 inches, and the other parts in proportion.*

HYDROCELE.—This disease is imitated by introducing air through a small incision, or it has been actually excited by injecting fluids. Some surgeons in the French army were convicted of doing this and severely punished. In the first case, the fraud may be detected by the lightness of the tumor, its sonorousness and the crepitation on pressure, but an accurate discrimination is more difficult in the case of injected fluid. It will, however, be more generally diffused than in the real disease, and if the patient be secluded and attentively watched, early absorption is found to occur.† The appearance of **HERNIA** has been produced in the same way, or its sac imitated with the bladder of an ox. A receipt for producing hernia by inflation, seems to have been current in the British army.‡

Some men have, however, the power of retaining the testes in the groin, by the voluntary action of the cremaster muscles, and the swellings thus resulting have been mistaken for hernia. An individual of this description was detected by Mr. Hutchison. He, to use his own language, soon proved an *alibi* of the testicles from their proper domicile in the scrotum, and caught them peeping through the pope's eyes. The scrotum was an empty bag. The man, on being detected, acted like a philosopher, and "seeing no longer any chance of eluding the king's service, displayed several remarkable feats of the power he possessed over these organs. He pulled both testes from the bottom of the scrotum up to the external abdominal rings, with considerable force, and again dropped them into their proper places with incredible facility. He then pulled up one testis, and after some pause the other followed, as the word of command was given; he then let them both drop into the scrotum simultaneously. He also pulled one gradually up,

* Scott, p. 154.

† Devergie, vol. ii. p. 919.

‡ Sir A. Cooper's Lectures, vol. i. p. 75. Cheyne, p. 129.

while the other was as gently descending; and he repeated this latter experiment as rapidly as the eye could well follow the elevation and descent of the organs, so that my assistant and myself were not only surprised, but so exceedingly amused that we could hardly believe the evidence of our senses."*

Every writer on feigned diseases notices CONTRACTIONS and DEFORMITY, and their consequence, LAMENESS. The subjects will maintain particular joints for so long a time in one position that they assume the appearance, on a superficial examination, of being ankylosed. In consequence of inaction also, and the use of ligatures, these parts often become thin. Patient and long-continued watching, combined with the use of appropriate remedies, and at the same time disguising the appearance of suspicion, will often succeed in detecting the real nature of the case. An emetic has been given, and during the sickness produced by it, the contracted limb has been found to yield to a very slight force. Electricity has been effectual with some; a pulley with others. The French surgeons attached a weight to a ribbon placed around contracted fingers, and in a few minutes (not exceeding ten) the disease was removed. They also made those who complained of contraction of the lower extremities support themselves for some time on the healthy leg alone. The trembling and elongation of the other soon manifested the deceit.† "A tourniquet may be placed on the limb above the joint, by which the muscles are prevented from acting, and the joint becomes in consequence movable."‡

Again, feigned cases have been detected by an examination of the part during sleep; or by engaging the person in interesting conversation; or by making continued flexion of the healthy extremity. The diseased one has thus been forgotten, and it insensibly returns to its natural state. Yet with all

* Hutchison, p. 187.

† Orfila, *Leçons*, vol. i. p. 408.

‡ Scott, vol. ii. p. 139.

the keenness that long experience may be expected to produce, there are many who succeed in deceiving the examiner. "A convict who was confined on board the Retribution hulk at Woolwich, during the period of his sentence, which was seven years, kept his right knee bent so as not to touch the ground with his foot all that time; and he was, on that account, not sent to hard labor with the other convicts. He was commonly employed in executing light jobs, which he could do in a sitting posture. When he moved from place to place, he used to hop upon the left foot with the assistance of a stick. At the end of the seven years, he was discharged; and upon going away, he very coolly observed, 'I will try to put down my leg—it may be of use to me now.' He did so; and walked off with a firm step, without his stick, which he had previously thrown away."*

Some of the best-formed men in the British army feigned various distortions—as of the spine, the chest, or the limbs. It is hardly necessary to say, that nothing but careful and repeated examination will detect the fraud. *Wry neck* was also not uncommon in France. In real cases of this disease, according to Orfila, the sterno-cleido-mastoideus of the opposite side is not tense; but in feigned ones it is. The impostor,

* Scott, vol. ii. p. 138. A writer in the Boston Medical and Surgical Journal, (vol. viii. p. 284,) suggests the idea, that the sudden recovery of lost powers is not a positive proof of malingering. To a certain extent, this may be true; but these cases it will not be so difficult to decide as those of an opposite description. A man is struck with a stick or hammer, about the hip-joint. He recovers from the external bruises, but continues lame. Nothing that indicates injury can be discovered on examination; but remedies produce little or no effect, and the individual walks with a crutch. A case of this kind became the subject of a lawsuit in Glasgow some years since. The injured thigh had sensibly diminished in size; but this was attributed, by the witnesses on one side, to the prosecutor not giving the limb its due share of motion. It is, however, well put, that if this was a case of feigned disease, the inactivity being only for the public eye, would have been so trifling as not to cause this attenuation. The probability was therefore in favor of its reality. (*Lancet*, N. S., vol. viii. p. 740, from Glasgow Medical Journal.)

also, cannot readily turn his eyes to the side opposite to the contraction.*

[The simulation of contractions and deformities may be detected by anæsthetic agents. In employing them for *this purpose*, the surgeon should bear in mind that some of them endanger life, and he should be particularly careful to determine beforehand the purity of the anæsthetic, and the absence of disease of the heart or other organs, which contraindicate their use.—R. H. C.]

ULCERS are frequently induced by the use of epispastics, acetate of copper, quicklime, the juice of euphorbium or other acrid plants; and real ones are often prevented from healing by similar means. Some again cause them by rubbing the part, particularly the shin, and they have been known to keep up irritation by thrusting pins through the bandages. Besides noticing the nature of the discharge, whether it be pus or sanies, and also attending to the habit of the patient, it is sufficient to mention, that ulcers caused intentionally are readily distinguished from real ones, since their borders are less callous, their surfaces more superficial, and generally less painful; and by the use of lukewarm water, and covering them with lint, they are readily healed; and the reason for this is, that they do not originate from or accompany a disease of the system. Frauds of this description are frequently attempted in hospitals, or to avoid the performance of labor of every kind. In 1810, a fellow enlisted in the marines at Portsmouth, (England,) and received his full bounty. In a few days, it was discovered that he had a very bad leg. On investigation, it was proved by his wife and others, that to avoid going on duty he had made an incision in the flesh just upon the shin-bone, and put a copper half-penny on the wound, which almost immediately caused a violent inflammation. He ultimately, however, paid most dearly for his speculation; as a mortifica-

* Orfila, Leçons, vol. i. p. 409.

tion followed, and it was found necessary to amputate the limb.*

Mr. Hutchison amputated the leg of a man at Deal Hospital, for a caries of the tibia, extending from the ankle-joint to the knee. The patient persisted in denying that he had ever "played any tricks" with his leg; yet on dissection, a piece of copper coin was discovered, imbedded between the gastrocnemius and soleus muscles, nearly three inches from the margin of the ulcer. He then confessed that he had thrust it into the ulcer about nine months before, with a view of obtaining his discharge by invaliding.† To prevent all injury, Mr. Hutchison was obliged, in many instances, to secure the leg in wooden boxes, made like a boot, and closed with a lock. Dr. Dunlop mentions this use of wooden boxes in the York Hospital in 1812-13, and also reports the case of a man who was discharged from six regiments, for factitious ulcers produced by the means above mentioned.

Nor is deception confined to common ulcers. Even that dreadful disease, CANCER, has been feigned. "I have seen," says Pierre Pigray, "a woman present herself to the late king of France, to be touched by him," (as the former kings of France were said to perform miracles in this way,) "who appeared to have a very large and ill-looking cancer of the breast. It seemed so extremely natural, that it might have deceived the spectators; but when I observed that she was young, of a good habit, well formed, and without any symptoms of cachexia, I was led to suspect deceit. On touching the ulcer, I ascertained, though with some difficulty, that a part of a spleen had been glued on its smooth side to the nipple, which left on the outside a serous and reddish kind of matter, similar to that of cancer. When this was removed, the nipple remained white, healthy, and well formed."‡

A false eruption of PETECHIÆ or PUSTULES may be detected by examining the patient perfectly naked.

* Edinburgh Annual Register, 1810, part 2, p. 105.

† Hutchison, p. 148.

‡ Quoted from his Surgery. Mahon, vol. i. p. 358. Foderé, vol. ii. p. 486.

OTORRHŒA and OZÆNA have been simulated by introducing into the parts small pieces of sponge, charged with offensive oils, or decayed cheese; and they may be excited with cantharides. FISTULA IN ANO has been simulated by making a punctured wound near the anus, and introducing similar substances. It is only necessary to cleanse the parts, and examine their condition, in order to ascertain the real nature of the disease.

WOUNDS, with reference to this subject, are very properly divided, by Drs. Scott, Marshall, and Forbes, into *fictitious* and *factitious*. Of the first, or those which have no existence, or are very slight, it would seem that they are most commonly feigned during action, to avoid danger. Contusions may be intentionally given, but their appearance seldom equals the impinging of musket or cannon balls. One case is mentioned where the part was stained, to imitate the purplish yellow hue of ecchymosis when on the decrease. It was alleged that the contusion had been received some time previous.*

FRACTURES of the thigh have been feigned; but it is found, on examination, that the muscles of the injured leg are hard and in full action, while those of the other are inactive and soft. A piece of metal has also been inserted into the head, to indicate previous fracture of some part of the skull. Mr. Marshall mentions a case where a soldier thus succeeded in procuring a discharge. He was, however, afterwards detected.†

Under SLIGHT WOUNDS, I may as well notice the insertion of needles into various parts of the body, as the arms, hands, breasts, etc. Two cases are related of females doing this. One happened at the Richmond Hospital, Dublin, and the irritation and inflammation ran so high as to render amputa-

* Scott, vol. ii. p. 156.

† Marshall, p. 173.

tion near the shoulder-joint necessary. The other was at Copenhagen. As the needles were extracted, others were inserted at different places—so that no less than four hundred were removed from various abscesses in about three years. In the first instance, the individual made a confession; in the second, she was seen introducing them under the skin.*

FACTITIOUS WOUNDS, or mutilations produced voluntarily, present some points of greater difficulty. It will always be a question whether they were not caused accidentally. The practice itself is of ancient date. Among the conscripts of ancient Rome, a common species of mutilation was cutting off the thumb, and from this (*pollicem truncando*) it would appear that our modern word *poltroon* is derived.† It was common during the last war, both in England and in France, and the injuries were inflicted either by fire-arms or cutting instruments, and generally on the upper or lower extremities. In one regiment, at the Cape of Good Hope, nine disabled themselves in six weeks, for the purpose of being discharged.‡

Each case demands a separate investigation. A dragoon said that his horse had bitten off his finger, but he forgot to wipe his bloody sword, which lay in the manger. Another came running with two amputated fingers, produced, as he said, by the collision of water casks. The cuts were clean, and the amputation complete. Another lost his thumb by falling on broken glass, but there was not the mark even of abrasion, beyond this single severe excision.§ The French

* Scott, vol. ii. p. 148.

† Ibid. p. 156.

‡ Marshall, p. 177.

§ Marshall, p. 179. It is now provided that in all cases of maiming, whether the injury occurred on or off duty, whether accidentally or intentionally, the soldiers shall be tried by a district court-martial, as soon after the event as possible. (*Ballingall's Military Surgery*, p. 597.) No pensions are granted except the injuries occur in the performance of military duty. In France, any individual drafted to perform military duty, who incapacitates himself either temporarily or permanently, is liable to imprisonment for any time between a month and a year, and a higher degree of punishment is directed against accomplices, if they be *medical men*. (Law on the Recruiting of the Army, passed in 1832; Briand, third ed., p. 789.)

“The dread of conscription is painfully illustrated by the number of

soldiers sometimes caused their teeth to be filed off, or extracted, so as to be unable to bite off the end of the cartridge.

After the bloody battles fought by Napoleon, at Lutzen, Bautzen, and Wurchen, it was insinuated to him that some of his soldiers had voluntarily mutilated themselves, particularly in the hands and fingers. On investigation, nearly three thousand were found thus injured. They were collected together, and a medical jury was appointed, over which Larrey presided. On examination, it was found that nearly all the wounds had been inflicted by contusing bodies, propelled by fire-arms, and but a few by polished weapons. Again, a majority of them presented other wounds on various parts of their bodies.

The verdict was favorable to the gallant soldiers.† Larrey ascribes the great predominance of this kind of injury to the fact that they fired in three ranks, and those in the second and third involuntarily rested the barrels of their guns on the hands of those in the first rank; and again, the enemy occupied the summits of several hills, and of course fired down upon the French, who, in return, would have their hands constantly raised to their guns.*

A case in civil life was investigated by Dr. Marc. The individual, under the idea, as it would seem, of rendering himself of importance to a relative, or to secure his gratitude, pretended to have had a murderous conflict with some assassins, although no dead bodies could be found. His head was wounded, longitudinally, to the extent of about an inch, and in direction from left to right. The integuments only were

maimed you meet everywhere. At least two-thirds of the male population of Egypt have deprived themselves of the right eye, or of the forefinger of the right hand. There are even professional persons, who go about to poison the eye, which they do with verdigris, or sew it up altogether. Our equipment consisted of twelve men; of these only two were liable to conscription, and seven of them were either one-eyed or forefingerless." (*Warburton's Crescent and the Cross.*)

* Larrey's Surgical Memoirs, translated by Dr. Mercer, p. 107; Chausier, p. 487. The reader of French history will find an instance of factitious wound in the case of Joly, during the quarrels of the Fronde.

divided. The hat, of soft felt, was cut for nearly three inches, and in a direction from right to left. A cotton bonnet and a silk handkerchief, which he wore under his hat, were also divided. Dr. Marc observes, that a blow so powerful as to divide all these, should have inflicted a less superficial lesion.

As collateral evidence, the appearance of the knife used in killing the assassin was adduced. It had a thick covering of blood. Now this was hardly consistent with the idea of stabbing, since on drawing it out, the flesh and the clothes would both rub off a portion, and what remained would be in longitudinal striæ. Dr. Marc was of opinion that it had been daubed on. He deemed the whole case pretended, *the effect not corresponding with the force of the ascribed cause*.*

Similar cases have been recently detected at Paris, principally from the *slightness* of the wounds. They were not such as a robber or a murderer would inflict. The celebrated Dupuytren was called as an examiner in one of them, and he related before the detected individual the following circumstance:—

As Napoleon was one evening in the park of St. Cloud, a young man rushed toward him, with the cry of “*Assassins! Save the First Consul!*” He fell near the group which surrounded Bonaparte, and on examination two wounds were discovered, from which blood flowed. He represented that he had been studying in the park, when he overheard concealed conspirators waiting the favorable moment for an attack, and on being discovered, was thus wounded by them. The gates were instantly closed, but no conspirators could be found. During many examinations, he persisted in this story; and it was only at the end of fifteen years that he confessed that he had inflicted the wounds with his own hands.†

From the enumeration now made, it is evident that, without due vigilance, the military strength of a country may be seri-

* Annales d'Hygiène, vol. i. p. 257. There is another doubtful case of assassination in vol. ix. p. 417, although the physician, Dr. Breschet, inclines in favor of the wounded person. All the wounds were extremely superficial, yet evidently made with a cutting instrument.

† Annales d'Hygiène, vol. xi. p. 188; Devergie, vol. ii. p. 159.

ously impaired by deceptions among its soldiers and sailors, and the duty of the medical officer thus becomes a highly responsible one. He is to guard against fraud on the one hand, and severity on the other. Nothing can compensate for the reflection that he has unjustly condemned, or caused to be punished, a man who, it is subsequently proved, labored under disease. I have already mentioned instances where mistakes have been made. Many others are enumerated by writers, and particularly of that class where deep-seated pain is the principal symptom. Dr. Cheyne speaks of one who was treated as a malingerer and sent to drill, until a lumbar abscess appeared, of which he died.* In reflecting on these circumstances, and the many obstacles to a full detection, I am very ready to withdraw a somewhat rash assertion which I made in a previous edition, that it is disgraceful for a surgeon

* Cheyne, p. 137. "I received (says a writer in the Glasgow Medical Journal, August, 1831) an impressive lesson of caution in these matters, by my acquaintance with a case which occurred in the Infirmary of Edinburgh nearly thirty years ago. A street porter, after a fall, began to complain of pain stretching along the whole outside of the thigh. The pain was much aggravated by motion, so that he could not walk across the ward without a crutch. The case being supposed to be sciatica, he was under the care of the late Dr. Duncan, assisted by my lamented friend Dr. Bateman, who acted as clinical clerk. The most attentive examination, scrupulously and laboriously made, could discover nothing deviating from the ordinary structure and appearance; nor was there any general affection of the system. Our patient, too, was the object of suspicion. It was a severe winter; employment for porters was said to be scarce; the lodging and food of the infirmary were comfortable, and the allotment from a benefit society was accumulating in his favor. He readily submitted to the most violent counter-irritants, but without acknowledging any relief. Perkins' metallic tractors, then in high vogue, were applied with due solemnity; and this was the only application which relieved the pain. This admission on the part of the patient, however, only served to confirm our suspicions. He was dismissed from the hospital, with *simulation* affixed to his name in the records; and, as we understood, he was struck off from the roll of the friendly society. But about two weeks after his dismissal, he died of an apoplectic attack. The thigh complained of was inspected. The cartilage covering the head of the femur was partially destroyed; and purulent matter, to the amount of two ounces, was found in the cavity of the joint." (*Lancet*, N. S., vol. viii. p. 737.)

to be deceived by an individual who feigns his maladies. I am convinced that the remark was altogether too strong and too broad.

Much may be done to detect, by conversing with the individual alone, by a patient investigation of the nature of the disease, by concealing all doubts concerning its reality, and by neglecting the individual, if we are satisfied of his fraud, rather than consigning him to punishment. No harsh means, beyond those proper for the real disease, should ever be used by the surgeon.* It may be well also to remember, that a general disposition to feign disease often has its origin in the severity of the service, or the inhumanity of some who are clothed with authority.

Pretended pregnancy and delivery, and feigned insanity, will be noticed in subsequent chapters. And I shall conclude the consideration of the present topic by remarking that physicians are not unfrequently called upon to examine *impostors*, or those who feign diseases *which can have no existence*. The full consideration of these, however, belongs strictly to medical police, since they are seldom subjects of *legal* investigation.

It has generally been the case, that the hope of exciting public curiosity, and, of course, commiseration and charity, has been the moving principle of impostors; and they have justly imagined that the feigning of ailments contrary to the course of nature and the experience of mankind, would most readily answer the purpose.

ABSTINENCE, for a great length of time, is the most frequent, as well as the most successful, of these deceptions; and the reason is obvious. It is practicable, to a certain extent, and the most constant and minute attention is requisite to detect the falsehood. [We may ask, with Dr. Copland, wherefore should we attempt to detect this deceit?—R. H. C.] The most noted, because it is the most modern case, is that of Ann Moore, the fasting woman of Tutbury, England. According

* Cheyne, p. 179.

to her account, she commenced in March, 1807, and continued fasting for six years. At the end of that period the imposture was discovered, in consequence of a watch placed over her; and it was ascertained that her daughter secretly gave her food and drink. The *cui bono* is readily explained, from the statement of Dr. Henderson, who observes that she made so much by the exhibition of her person, as to place £400 in the stocks. She had, however, the power of abstaining from food for a considerable length of time. During the last watch, she received none for nine days and nine nights.*

I will add only one case to the preceding. Cicely De Rydgeway, in the thirty-first year of Edward III., was indicted and condemned for the murder of her husband. It is stated that she fasted in prison forty days. A record, lodged in the Tower of London, contains an account of this remarkable abstinence, attributes it to a miraculous power, and adds: "Nos ea de causa pietate moti ad laudem Dei, et gloriosæ Virginis Mariæ, matris suæ, unde dictum miraculum processit, ut creditur." It concludes with a full pardon of the criminal.†

* Observations on this case may be found in the fifth and ninth volumes of the Edinburgh Medical and Surgical Journal; and also in the London Medical and Physical Journal, vols. xxi. xxiv. xxix. and xxx.

† London Medical and Physical Journal, vol. xxxi. p. 50. I add the following references for the use of those who may be desirous of examining the subject of abstinence:—

A female in Germany, who imposed on the public for two years. London Medical and Physical Journal, vol. vii. p. 190.

Mary Thomas. London Medical and Physical Journal, vols. xxi. and xxx. Hildanus, Ramazzini, Block, Doebel, Fontenelle, and Dr. Willan are quoted by Mr. Granger and Dr. Henderson, in their papers on Ann Moore's case in the Edinburgh Medical and Surgical Journal, vols. v. and ix.

Cases are also recorded in *Stelpart Van Der Wiel*, vol. ii. observ. 15; *Haller's Physiology*, vol. v. p. 168; *Schurigius' Chylologia*, chap. iv.; *Edinburgh Medical Essays and Observations*, vol. v. part 2, pp. 1 and 6. *State Trials*, Emlyn's edition, vol. v. p. 482. Trial of Richard Hathe-way, for a cheat and impostor, at Surrey assizes, March 24, 1702. Among other things, he said that he had been bewitched by one Sarah Murdock; and in consequence of this, he could not eat, but fasted ten weeks.

Harleian Miscellany, vol. iv. p. 41. A discourse upon abstinence, occasioned by the twelve months' fasting of Martha Taylor, the famed Derbyshire damsel; by John Reynolds, surgeon.

Memoirs of Literature, vol. iii. p. 112. Account of a Swedish damsel, who has lived six years without food: attested by the Bishop of Skara, (West Gothland.)

Republic of Letters, vol. ii. p. 439. History of a singular and extraordinary distemper in a woman, by Dr. Michelletti.

Philosophical Transactions, vol. xiv. p. 577; vol. xxviii. p. 265; vol. xxxi. p. 28; vol. xlii. p. 240; vol. lxvii. p. 1.

Medical Commentaries, vol. xiv. p. 360.

Medical Communications, vol. ii. p. 113. Dr. Willan's case.

Quarterly Journal of Foreign Medicine and Surgery, vol. v. p. 190.

References in *Elliotson's Blumenbach*, pp. 301-3.

Two cases of females, one in Holland, and the other in Italy. *Medico-Chirurgical Review*, vol. xxiii. p. 204.

A case, supervening on Chlorosis, by Dr. Forry, of Maryland. *North American Archives*, vol. ii. p. 365.

NOTE.

DR. BECK has noticed mental alienation as a feigned disease, in another chapter. In this view, however, it is intimately connected with the first section; and the following cases, taken from Mr. Marshall's Hints to Medical Officers, will well illustrate the difficulty of detecting imposture, and the necessity of extreme caution in coming to a decision.

"Some time ago a man enlisted in a regiment at present (December, 1827) quartered in the garrison, (Dublin,) who, after being at drill an unusually long period, could not be taught his duty. Every exertion was made by the adjutant and drill-sergeant to make him comprehend the manual and platoon exercise, but apparently without success. In consequence of this corps having been joined by another regiment, the presumed idiot was discovered to be a deserter, and a very clever fellow."

The following, however, is a more melancholy instance of imposition being suspected, where it was not practiced, and will show with what anxious caution a decision should be made that may render an individual liable to punishment. It is copied from the same work:—

"Private Charles Louis, aged 31, — regiment of foot, complained, during the month of December, 1825, of pain in the loins, occasioned, as he said, by a sprain, received the preceding July while drawing water from a well, but which he did not mention when the accident happened. As the ailment was considered very slight, he was not admitted into the

hospital. He continued, however, to complain of pain in the loins, and about the site of the cæcum. On the 26th of January, 1826, he went on furlough, and returned to the regiment on the 26th of February. From this period he obstinately refused to do any duty, assigning as a reason that he was unable. He was then admitted into hospital, where he was kindly treated, but carefully observed. His appetite and other functions of the body were natural, and no trace of disease could be detected. He sometimes complained of uneasiness in the region of the liver, but never represented the pain as urgent; and, indeed, seldom said anything respecting his ailments, unless in reply to direct queries. He was in general remarkably taciturn; and his manner appeared to be more indicative of moroseness than of mere lowness of spirits. Eventually he was discharged from hospital, but still persisted in refusing to do his duty. He was tried by a regimental court-martial, for disobedience of orders, which sentenced him to undergo corporeal punishment; and on the 15th of March, he received 175 lashes, in the usual manner, without making the slightest complaint. He still, however, declined doing duty, and was a second time tried by a court-martial, and sentenced to be confined for one month in a solitary cell. When released from confinement, he was ordered to pull up the grass between the stones in the barrack-yard—an employment which annoyed him more than any other punishment. His case was now brought to the notice of Lieutenant-General Sir George Murray, commander of the forces in Ireland, with a recommendation that he should be transferred to the General Military Hospital, Dublin. This suggestion being adopted, Louis was admitted into the General Hospital on the 30th of May, where he remained under the care of Dr. Cheyne until the 12th of July, when he rejoined his regiment. During the time he was in Dublin, he preserved his usual gloomy, discontented manner. The greatest care was taken to investigate his case, but no trace of disease, either physical or mental, could be satisfactorily observed; and a certificate to that purport, signed by Dr. Peile, deputy inspector of hospitals, Dr. Brown, surgeon to the forces, Dr. Crampton, surgeon-general, and staff surgeon Stringer, was transmitted to the regiment, upon his being discharged. Shortly after Louis had joined the regiment, he evinced decided symptoms of aberration of mind, which were for a considerable time supposed to be feigned; but after close observation for several months, the surgeon of the regiment deemed his intellect to be unsound. In July, 1827, he was again admitted into the General Hospital, Dublin, in consequence of mental alienation; and it is the opinion of Dr. Cheyne and the other officers of that establishment, that there can be no doubt of the reality of the mental affection. He is still (December, 1828) in hospital: his manner is much less gloomy than formerly; and he shows no reluctance to discuss topics connected with his present hallucination.

He, however, artfully eludes every attempt to extract any information from him respecting his family or early life. Among many other incoherent notions which have entered his mind, he conceives that he is colonel of the 15th Regiment, and that he is abounding in wealth, but that he is deprived of the use of it by undue means. His bodily health continues good."

The work above quoted may be consulted with great advantage on the subject of feigned diseases. It is entitled "Hints to Young Medical Officers of the Army," etc., by Henry Marshall, Surgeon to the Forces. (DARWELL.)

DR. OLLIVIER, (D'Angers,) in an elaborate memoir, published some time since, divides Feigned Diseases into three classes: the pretended, the produced, (*provoqués*), and the feigned, strictly so called.

To the first class belongs all the varieties of pain, as neuralgia, rheumatism, etc., lameness and injuries from falls or blows. The difficulty in deciding on these, arises from the absence of external indications, and the fact that the symptoms may long continue, without producing any manifest change. In all cases, the character of the patient, and the motives by which he may be influenced, should be considered.

In induced or produced diseases, the point to be decided by the medical examiner is, whether the complaint which *actually* exists has been caused by foul means. Thus, amaurosis has been attempted to be feigned by the repeated application of belladonna, ophthalmia by the use of irritants. Cases of this description require narrow watching. The dilatation of the pupil will subside in a few hours, unless the belladonna be reapplied, and ophthalmia will also run its usual course, if the irritation be discontinued. Dr. Ollivier mentions an affecting case of an individual, who, in order to avoid the conscription, had his eye cauterized. It ended in blindness, and the subject in despair committed suicide. Mutilations and wounds belong also to this class. A female stated that in resisting an attempted robbery, a pistol had been discharged at her at a very short distance, and that she was wounded. She could exhibit no mark except a very slight one on the chin. No trace of powder could be discerned on her skin, nor on that of an infant which she bore on her right arm. The dress also, where it was injured, resembled rather the effects of burning than of a fire-arm. It was doubtless a case in which the individual endeavored to excite some interest in her favor, or to attract notice.

The following, however, has a more malignant character: A female was accidentally injured by a carriage in the streets of Paris. Madame C—, the owner, removed her immediately to the royal *Maison de*

Santé, where she was carefully attended. The wounds proved to be merely superficial, and there was a prospect of a speedy recovery. Meanwhile some kind friend whispered to her that she should demand damages of Madame C——, and accordingly the wounds soon became worse. Some that had cicatrized now began to suppurate, and violent and constant pain was stated to be present. Madame C—— had offered a liberal sum in compensation, but a much larger one was now demanded.

When the cause came before the court, our author was desired to visit the invalid. He found her in apparent good health; but on examining the wounds, they were all ascertained to be dressed with *epispastic ointment*, and boxes of this medicine were seen in the bed and on the night table. In this manner the illness had been prolonged. The court at once dismissed the application for increased damages.

In the third class occur those cases of refined ingenuity which often baffle the most acute observer. We have cause for suspicion when the symptoms continue most obstinately stationary, and yet the individual continues to enjoy good health. This to the public would seem to prove the reality of the disease, although it in fact only shows the perseverance of the simulator.

[In addition to the authorities cited by Dr. Beck, the reader who desires a more thorough acquaintance with this subject—the military medical officer in particular—is referred to the “Prize Essay on Feigned and Factitious Diseases, chiefly of Soldiers and Seamen,” by Hector Gavin, M.D. etc. etc.; and to the “Aide Mémoire Médico Légal de l’Officier de Santé de l’Armée de Terre,” par F. C. Maillot et J. A. A. Puel.—R. H. C.]

CHAPTER II.

DISQUALIFYING DISEASES.

Disqualifications in civil cases—in criminal cases. Disqualifications for military service. Classes exempted by the law of the United States. Law of the State of New York on exemption from military duty. Regulations for exemption in France—in Prussia. Rules for the inspection of recruits in England. Diseases that exempt or disqualify—statistical results. Rules for the examination of recruits in the United States—statistical results. Law decisions on pleas for exemption. Certificates of exemption and discharge. Laws respecting these.

THIS chapter, and the one preceding it, are intended principally for the use of the military physician and surgeon. But although the subject of disqualifying diseases falls peculiarly under their notice, yet there may be numerous instances in civil life where the opinion of the medical man is required concerning them. He may be directed, for example, to ascertain whether an individual be fit to serve on a jury, whether he be able to attend as a witness, or whether he be competent to take on him certain offices or duties. Again, a physician may be ordered to investigate the condition of a criminal, and to report whether he be capable of undergoing hard labor, or of suffering other severe punishments that are inflicted by the justice of his country.*

* [The consideration of Insurance upon Lives is reserved for another portion of this work, but much of this and of the preceding chapter is applicable to that subject. Thus, a party may desire to effect, or to renew, a policy of insurance upon the life of another, his debtor perhaps, and the person to be insured may feign disease to defeat that purpose; or, an applicant for insurance may seek to conceal disabilities, which the hints here given would aid the medical examiner in detecting. These chapters may also be useful in connection with the examination of applicants for pension.—R. H. C.]

I shall accordingly consider this subject as follows:—

1. As to the disqualifications in civil and criminal cases.
2. As to the disqualifications for military service.

I. Of disqualifying diseases in civil and criminal cases.

In civil cases, the presence of acute diseases should undoubtedly exempt from the performance of most of the offices or duties to which an individual can be called. The imminent danger which may follow from muscular exertion, together with the weakened state of the mental faculties which generally accompanies these ailments, renders a demand for such performance cruel and oppressive. And accordingly, in all countries where the law governs, the proof of this is deemed a sufficient exemption. But there may be diseases, on which a doubt exists, whether the required exertion would prove injurious; as, for example, rheumatism, asthma, and particularly epilepsy. Concerning such, it would be idle to give any specific rules, further than to observe, that it behooves the examining physician to inquire into the nature of the particular case, and from his knowledge of it, to be guided in his testimony. Should there be a patient liable to convulsive affections, and who is only preserved from frequent attacks by being kept calm and sequestered, he certainly would not be a proper person to serve on a jury, or to be kept for a length of time as a witness before a crowded court. The same remark applies to those who are laboring under infirm health, or a predisposition to consumption, who have symptoms of aneurism, of stone in the bladder, etc., or who suffer from periodical or continued attacks of pain. The humane, and therefore the just rule in all these cases, is to exempt the subjects of such maladies from all duties that are not indispensable.

The distinction, however, should be kept in view, that many who are unable to travel without great danger, may still be examined at their own houses, and that thus the ends of justice can, in a great degree, be answered.

In elucidation of these remarks, and as showing that they are practically observed, a few cases may be quoted:—

In *Andrews v. Palmer*, (1812,) depositions taken, *de bene esse*, were presented upon the incapacity of a witness, from bodily injury, to attend a trial. Lord Eldon remarked: "This affidavit is too loose, that the witness will not be able to travel for a considerable time. The surgeon ought to have made an affidavit, with reference to the time when the trial is to come on, pledging his professional judgment to the probability that the witness will not be able to attend. If the affidavit were more precise in that respect, I think I ought to make such an order as I have mentioned," viz., for the officer to attend with the original deposition.

An affidavit was afterwards produced, more precisely worded, and the order was made accordingly.*

The Queen v. Sophia Wilshaw.—The prisoner was indicted for stealing money, the property of Joseph Wood, her master. A surgeon deposed as follows: "I am a surgeon; I know Mr. Joseph Wood; he is eighty-five; he is quite infirm and bed-ridden; he can sit on the side of his bed when he is lifted out; he is not able to bear a journey to the assizes, and I think it is not likely that he ever will be so." The counsel for the prosecution proposed on this, to give in evidence the deposition of the prosecutor, taken before the committing magistrate, in the presence of the prisoner; and this was allowed by the court. The prisoner was acquitted on the merits. (1 *Carrington and Marshman's Nisi Prius Reports*, 145.)

As to criminal cases, it is equally unnecessary for me to enlarge, since the well-known humanity of our country renders it superfluous. We can readily imagine a state of body in the criminal, that would make the application of irons to his limbs, or the condemnation to hard labor, a sentence more dreadful than death itself. I may, however, remark, that while acute diseases deserve commiseration and attention as much as in

* 1 Vesey and Beames' Chancery Reports, p. 21.

the preceding instances, there are also some affections which should prevent or delay the execution of the higher punishments. Two of these are so important to be ascertained with certainty, that I shall treat of them under their respective titles, viz., PREGNANCY AND INSANITY.

In all cases, whether of a civil or criminal nature, everything must depend on the skill of the physician and the correctness of his testimony concerning the diseased person. As it is impossible to suggest specific rules, applicable to every instance that may occur, so it will be his duty to study the peculiar symptoms and indications with great attention, and while he leans to the side of mercy, avoid being deceived by feigned representations of imaginary maladies.*

II. *Of disqualifications for military service.*

In every State, however despotic, there are certain classes of individuals exempted from military duty. This is in fact deemed indispensable, even with those who consider the male population merely as the material for armies. There must remain some to renew the waste of war—some to support the women and children of the nation, and others to protect them from injury.

The Jewish lawgiver, in his statutes, mentions several classes who were exempted from this duty, and in particular, all married persons during the first year of their marriage.† Similar provisions are to be traced in the laws or customs of all countries.

In the United States, by a law of Congress, all persons under eighteen years of age and above forty-five, are exempted. The importance of this regulation in time of war is incalculable, since it prevents the destruction of such whose strength is not yet matured, as well as of those who are already feeling

* See on this subject, Foderé, vol. ii. p. 431, etc.

† Deuteronomy, chapter xx. verses 5, 6, 7; chapter xxiv. verse 5. See Michaelis, vol. iii. p. 34, for an enumeration of the classes that were exempted.

the advances of age.* It is also understood that there are many diseases which disqualify or exempt from military duty, but there is no law in which they are specifically enumerated. In this State the *Revised Statutes* merely provide, that "Persons claiming to be exempted from enrollment, by reason of inability to bear arms, may produce the certificate of a surgeon or surgeon's mate, as evidence of such inability, but such certificate shall not be conclusive, nor shall it be lawful for the person giving the same to take any fee or reward therefor."†

In the very perfect military system of France, where conscription, or involuntary enlistment obtains, the attention of the government was directed at an early period to the importance of deciding with precision, what constituted an exemption from military duty; and definite rules on this subject were promulgated soon after the revolution. A number of Inspectors-General, viz., Coste, Biron, Heurteloup, Villars, Parmentier, Bruloy, Imbert, and Kanens, were constituted a council of health of the armies; and they prepared certain tables of diseases, which partially or totally exempted from military duty. This was done during the reign of the Directory, (year VII. of the Republic,) but they were incorporated into the Code de la Conscription by Bonaparte.

As this code suggests every principle involved in deciding upon the fitness or unfitness of individuals for military service, it has been thought advisable to present it in this connection.

* "After the battle of Leipsic, Napoleon made great exertions to recruit his army, and called upon the legislative senate to give him their assistance, to which they showed some reluctance. 'Shame on you!' cried the emperor; 'I demand a levy of 300,000 men. But I must have grown men; boys serve only to encumber the hospitals and roadsides.'" (*Edin. Med. and Surg. Journal*, vol. xxxvi. p. 137.)

In an English regiment, employed in the Burmese territories in 1824, the ratio of mortality among the young men was 38 per cent., or 1 in every 2½; while among those who were considerably older, the mortality was 17 per cent., or 1 in 6. (*Dr. Burke, Inspector-General of Hospitals, quoted in Medico-Chirurgical Review*, vol. xxi. p. 261.)

† Revised Statutes of the State of New York, part 1, chapter x., title 3.

It is hardly probable that its full requirements will ever be exacted in this country, but it is in principle applicable to our militia system, and can be consulted with advantage by all who have to decide upon the efficiency of recruits.

[There is reason to believe that many citizens are disposed to avoid the service which our militia system imposes in time of peace, and it may be necessary to apply to them the principles of the code, to secure full observance of the law. Experience has, however, proved that the contrary is true in time of war. During the war with Mexico the difficulty experienced by this government was not how to procure soldiers, but how to dispose of the thousands who volunteered their services. The fear of rejection, more than a sense of delicacy, led the volunteers to avoid, when possible, the examination required by army regulations. Thus many whose youth would have exempted them from enrollment obtained admission into the army, and even regiments were mustered into service under instructions from the War Department "not to have the men naked when examined." (*Henderson on the Examination of Recruits.*) It is to the non-observance of these rules respecting age and health, that a large proportion of the loss sustained by volunteers is attributable. It is shown by *official reports*, that the loss of the regular army in Mexico, from all causes, was 1.95 per cent. per month; and that of volunteers, 2.78 per cent. per month. In some volunteer regiments the loss by disease alone (deaths and discharges for disabilities) amounted to 5 per cent. per month, or 60 per cent. per annum; the annual average for the whole volunteer force being 25.56 per cent. The loss of the regular army from the same causes was 1.20 per cent. per month, or 14.40 per cent. per annum.—R. H. C.]

The code includes two classes of infirmities—First, those that are so evident as to imply absolute incapability; to be left to the decision of the municipal administration. Second, those which are less obvious, and which may occasion absolute or relative incapacity; to be carried up to the central administration.

The officers of health, in giving their opinion, are directed to regulate themselves by the following tables:—

TABLE I. *Evident infirmities, implying absolute incapability of military service, and which are left to the decision of the municipal administrations of the canton.*

1. Total privation of sight. 2. The total loss of the nose. 3. Dumbness; permanent loss of voice; complete deafness. If there be any doubt of the existence of these infirmities, or if they do not exist in a great degree, the decision is to be reserved for the central administration. 4. Voluminous and incurable goitres, habitually impeding respiration. 5. Scrofulous ulcers. 6. Confirmed phthisis pulmonalis, (consumption,) *i.e.* in the second or third degrees. Care should be taken to report the symptoms characterizing this state; and as they are but too evident, they ought to procure an absolute dispensation. But for commencing phthisis, asthma, even chronic, and hæmoptysis, the municipal administration ought to grant only a provisional dispensation, if the person be incapable of presenting himself before the central administration, the decision in these different cases being reserved to the latter. 7. The loss of the penis, or of both testicles. 8. The total loss of an arm, leg, foot, or hand; the incurable loss of motion of these parts. 9. An aneurism of the principal arteries. 10. The curvature of the long bones; rickets and nodosities sufficient evidently to impede the motion of the limbs. Other diseases of the bones, although great and palpable, are sometimes liable to doubt, and therefore are reserved for the judgment of the central administration. 11. Lameness well marked, whatever be the cause; this must be precisely stated. The same is the case with considerable and permanent retraction of the flexor or extensor muscles of a limb, or paralysis of these, or a state of relaxation impeding the free exercise of the muscular movements. 12. Atrophy of a limb, or decided marasmus, characterized by marks of hectic and wasting, which should be stated in the report.

TABLE II. *Infirmities or diseases which occasion absolute or relative incapacity for military service, and which are reserved for the examination and opinion of the central administration of the department.*

1. Great injuries of the skull, arising from considerable wounds, or depression, exfoliation or extraction of the bones. These sometimes occasion all, but commonly several of the following symptoms: Affection of the intellectual faculties, giddiness, swimming in the head, drowsiness, nervous or spasmodic symptoms, frequent pains of the head. 2. The loss of the right eye, or of its use. This defect disqualifies a man for serving in the line, but does not prevent him from being useful to the army in other services, or in the marine. 3. Fistula lachrymalis; chronic ophthalmia, or frequent rheums in the eyes, as well as habitual diseases of the eyelids or lachrymal passages, of such a nature as obviously to injure the powers of sight. 4. Weakness of sight; permanent defects of vision, which prevent objects from being distinguished at the distance necessary for the service of the army; short-sightedness; night-blindness; confusion of vision. In a note, it is observed that these affections of the sight are often difficult of decision, and it is recommended to the surgeon to ascertain the effect of glasses on the persons complaining of near-sightedness.* Nyctalopia, it adds, is rare in youth, and often only temporary; while amblyopia, or confused vision, may be known with some certainty, when we perceive that the pupils have changed their diameter, or when they have lost somewhat of their mobility or regularity. This, however, is not always present; and in doubtful cases it is directed that the testimony of ten individuals, not relatives of the appellants, should be brought, affirming the existence of these defects. 5. Deformity of the nose, capable of impeding respiration to a considerable degree; ozæna, and every obstinate ulcer of the nasal passages or palate; caries of the bones, and incurable polypi. 6. Stinking breath from an incurable cause, as well as fetid discharges

* See chapter i. p. 64.

from the ears; and habitual transpiration of the same character, when incurable. Soldiers who emit these fetid exhalations are rejected by the corps, and repulsed by their comrades. 7. Loss of the incisive or canine teeth of the upper or under jaw; fistulas of the maxillary sinuses; incurable deformity of either jaw by loss of substance, necrosis, or other cause hindering the biting of the cartridge, impeding mastication, or injuring the speech. A person without canine or incisive teeth, cannot be a soldier of the line, but may be employed in other services. 8. Salivary fistulas, and the involuntary flux of saliva, when incurable. 9. Difficulty of deglutition, arising from paralysis, or some other permanent injury or incurable lesion of the organs employed in that function. 10. Permanent and well-established diseases of the organs of hearing, voice, or speech, marked in degree, and capable of impeding their use considerably. As these diseases are very doubtful, and may frequently be simulated, it is advised that testimony proving their existence should be obtained, and the examination also should be repeated for several months at stated periods. An absolute or definite exemption need not be given, as they yield to time and skill. 11. Ulcers and tumors of a decidedly scrofulous nature. The symptoms, of a scrofulous cachexy, if there be any, should be stated. 12. Deformity of the chest, or crookedness of the spine sufficient to impede respiration, and to prevent the carrying of arms and military accoutrements. 13. Phthisis in the first degree; confirmed asthma; and habitual, frequent, and periodical spitting of blood. The state of patients attacked with these diseases is often evidently bad, and accompanied by circumstances which leave no doubt; they then admit of an absolute dispensation. Sometimes they are less decided, when only a provisional judgment is to be given. 14. Irreducible hernias, and those which cannot be reduced without danger. 15. Stone in the bladder; gravel; habitual incontinence or frequent retention of urine, as well as severe diseases or lesions of the urinary passages; fistulas of these parts, whether incurable, or requiring constant medical assistance. In a note, it is remarked that retention of urine pro-

duces well-known symptoms, which will guide to a knowledge of the true state of the case. Incontinence may be simulated with less danger of detection; and apparently in order to avoid the advantage that might be taken of this, it is directed that if the young man has, in other respects, a healthy and vigorous look, *he may be sent to the army without any inconvenience.* 16. The permanent retraction of a testicle; its strangulation in the ring; sarcocele; hydrocele; varicocele; all severe affections of the scrotum, testicles, or spermatic cords, known to be incurable. 17. Ulcerated hemorrhoids; incurable fistula in ano; periodical and incurable hemorrhoidal flux; habitual and chronic flux of blood from the intestines; habitual incontinence of feces; habitual prolapsus ani. These ought to be stated by able health officers, who have for a length of time treated and observed the patient; and a provisional dispensation is only to be given, until their incurability is established. 18. The total loss of a thumb or great toe, of the forefinger of the right hand, or two other fingers of one hand, or two toes of one foot; the mutilation of the last joints of one or several toes or fingers; the irremediable loss of motion of these parts. These, although they interfere in different degrees with several parts of the infantry service, do not unfit for other duties, such as miners, sappers, pioneers, or even for cavalry duty, if the mutilation of the toes or right hand be not considerable. If, therefore, the petitioner, on account of any other mutilation than the loss of the thumb, is in other respects strong and of a robust constitution, he ought to be sent to the army. 19. Incurable deformities of the feet, hands, limbs, or other parts, which impede marching, or handling of the arms, or carrying the accoutrements, or the free motion of any weapon. These may produce only a relative invalidity, and hence the physical effects arising from them should be stated. 20. Large and numerous varices. 21. Cancers and ulcers, which are inveterate, of a bad character, incurable, or whose cure it would be imprudent to attempt. The state of body accompanying them should be mentioned. 22. Large and old cicatrices badly consolidated,

especially if they have adhesions, and are accompanied by the loss of substance, covered with crust, or attended with varices.

23. Severe diseases of the bones, such as diastasis or separation, anchylosis, caries or necrosis, spina ventosa; osseous tumors, and those of the periosteum, when considerable, or situated so as to impede motion, and which have been treated without success.

24. Diseases of the skin, when they are capable of communication; when they are old, hereditary, or obstinate, as tinea; acute, moist, and extensive herpes; obstinate and complicated itch; elephantiasis; lepra. In all these cases, a definitive dispensation cannot be granted until after methodical treatment by very intelligent officers of health has been continued in vain, or unless the constitution of the patient be obviously injured.

25. Decided cachexy, of a scorbutic, glandular or other nature, known to be incurable, and characterized by evident symptoms of long standing; dropsies known to be incurable.

26. Debility and extreme attenuation, joined to a diminutive stature, or to a very tall one, out of the ordinary proportions. This case requires great judgment in deciding on it; and it is advised to adjourn the decision from quarter to quarter. "When a conscript has grown very rapidly; when he is tall, lean, and of slender make; when he has a long neck, arms, and legs; and when his breathing is difficult from the least exercise: such an individual is out of the question, until nature has added in strength what she has hitherto confined to stature."

27. Gout; sciatica; inveterate arthritic and rheumatic pains, impeding the motions of the limbs and trunk. If these are present in an acute form, the conscript has a right to a provisional dispensation; but if they be chronic, particular attention should be paid to the condition of the parts. Gout seldom arrives at a high degree of obstinacy, without leaving nodosities and sensible contractions; while protracted rheumatism alters the form of the muscles and color of the skin, and causes a wasting of the part affected. The surgeon is warned, in cases where no sensible appearances prove the existence of rheumatism, not to mistake a feigned for a real disease; and the following acute remark

is added: "As it is but just that in some other equivocal cases, such as those respecting the diseases of the breast, humanity should incline to the conscript's side; so with respect to pains and rheumatisms which are not proven, it is equally proper to prefer severity to indulgence; *as military exercise, far from aggravating the predisposition, if it exist, will only contribute to remove it.*" 28. Epilepsy; convulsions; general or partial convulsive motions; habitual trembling of the whole body, or of a limb; general or partial palsy; madness, and imbecility. The surgeon, in this class of cases, is to be particularly careful not to be deceived by a simulated disease.*

Such were the rules devised for the conduct of the inspecting military surgeon, in the days of Napoleon. They have been followed, though with greatly diminished severity, under the succeeding governments of France.

Dr. Marshall informs us, on the authority of Kirckhoff, that these regulations are very closely imitated in the army of the King of the Netherlands. In Prussia, the army is also recruited by involuntary levies, and every man, upon his reaching the age of twenty, becomes available for the services of the State, as a soldier. He is, however, exempted (among other causes) if he is furnished with a medical certificate, stating that he labors under an infirmity, either permanent or temporary, disabling him from military service. A list of diseases that disqualify was transmitted, in 1817, to the various military surgeons, by Goercke, physician-general, and chief of the military medical department of the Prussian army. I have compared this with the French tables, and find them very similar. A distinction is, however, made between the infantry and cavalry service, and it is stated that in the latter, the following do not disqualify for service:—being considerably inkneed, cicatrices of ulcers on the legs, loss of a great toe, moderately deformed feet, and flatness of the soles of the feet.

* These regulations are published in Belloc, p. 344 to 362; and a translation of them, which I have used, is contained in the Edinburgh Medical and Surgical Journal, vol. vi. p. 138, etc.

In garrison service also, hydrocele, if not very large; varices of the legs, if not very severe; a slight degree of contraction of the elbow-joint; shortness of one of the lower extremities, provided the defect can be remedied by means of a high-heeled shoe; inguinal or femoral hernia, if retainable by a truss; loss of any finger, except the thumb, and slight traces of scrofula do not disqualify.*

In France and Prussia, armies are raised by conscription; in England, by recruiting. It is, therefore, well remarked by Dr. Marshall, that in the former countries the regulations are calculated to obviate the *simulation* of defects, while in the latter they are intended to prevent fraud, through the *dissimulation* of infirmities.

Orders and instructions on this subject have, at various times, been issued by the medical department of the British army.† The latest that I have seen, and which are probably still in force, are dated July 30, 1830, and signed by Sir James McGrigor, M.D., director-general of the army medical department. The following are enumerated as the more common causes for which a recruit should be rejected:—feeble constitution, unsound health, from whatever cause; indications of former disease; nodes, glandular swellings, or other symptoms of scrofula; weak or disordered intellect; chronic cutaneous affections, especially of the scalp; severe injuries of the bones of the head; impaired vision, from whatever cause; inflammatory affections of the eyelids; immobility or irregularity of the iris; fistula lachrymalis; deafness; copious discharge from the ears; loss of many teeth, or the teeth generally unsound; impediment of speech; want of due capacity of the chest, and any other indication of a liability to pulmonic disease; disease of the heart; impaired, or inadequate efficiency of one or both of the superior extremities, on

* Marshall's Hints on the Examination of Recruits, etc., p. 49.

† For copies of these orders and instructions, see the works of Henry Marshall, Deputy Inspector-General of Army Hospitals, "On the Examination of Recruits," and "On the Enlisting, Discharging, and Pensioning of Soldiers." See also Hennen's Military Surgery, American edition, p. 354.

account of palsy, old fractures, especially of the clavicle, contraction of a joint, mutilation, attenuation, deformity, ganglions, etc.; an unnatural excurvature or incurvature of the spine; hernia, or a tendency to it from preternatural enlargement of the abdominal ring; a varicose state of the veins of the scrotum or spermatic cord; sarcocele, hydrocele, hemorrhoids; fistula in perineo; impaired or inadequate efficiency of one or both of the inferior extremities, on account of varicose veins, old fractures, malformation, flat feet, palsy or lameness, contraction, attenuation, unequal length, bunions, overlying or supernumerary toes, ganglions; ulcers, or unsound cicatrices of ulcers, likely to break out afresh; diseases, whether acute or chronic, for which medical treatment is required; and lastly, traces of corporal punishment, which is declared to be an unqualified cause of rejection.

The medical officer is also directed to attend to all the circumstances that indicate vigorous health, a capacity for exertion and general efficiency, such as a proper proportion between the trunk and limbs; a firm and elastic skin; a healthy countenance; a lively eye; chest capacious and well formed; belly lank; limbs muscular; feet arched, and of a moderate length; hands rather large than small; teeth in good condition; voice strong.

The recruit is to be undressed before inspection, and is to perform before the medical officer a certain routine of actions, such as walking, extending the arms, coughing while in that position, standing upon one foot, kneeling, etc. etc. A proper manual examination is, of course, made during these exercises. It is also to be ascertained, whether he has had the small-pox, or has been vaccinated.

"The certificate of surgeons or assistant surgeons, when they approve of recruits for the corps to which they themselves belong, will be considered final;"* but in other cases,

* "Final approval" refers to the time when the recruit joined his corps. He may be enlisted in some distant part of the country and approved, but

they are to be re-examined by a district staff surgeon, or the medical officer of the regiment to which they are sent.*

Dr. Marshall mentions some curious facts illustrative of the necessity of great caution and acuteness in these inspections. Thus recruits, in order to obtain the required height, have been known to glue pieces of buff to the naked soles of the feet, or to rub cobbler's wax among the hair. On the contrary, in France, where the object of the conscript is a discharge, he has endeavored to diminish his height by cutting off all his hair, and paring off the thick cuticle under the soles of his feet.

It is recommended by our author, as the most certain mode of ascertaining the exact height of individuals, to measure

on reaching the place where he is to be formed into a soldier, he must be examined anew by the commanding officer and surgeon.

"In our army, the commandant never interferes except when, from general debility, or obvious bodily infirmity, a recruit is not equal to the duties of a military life. The recruit is first examined by the surgeon of the district where he is enlisted, then by the regimental surgeon on joining; and should any difference of opinion take place, the case is referred, if near London, to the medical board, or if at a distance, to a board specially called together for that purpose." (DUNLOP.)

* "These causes of incapacity are and always have been understood. During the heat of the war, when levies of recruits to the amount of 100 or 150, often joined a regimental depot at a time, a half-witted fellow might sometimes be slipped through, particularly when the officers wished to show a strong paper muster, in order to escape a disagreeable duty at home, and be sent on a dashing service abroad, where there were some hopes of promotion from that great desideratum of an officer, 'a bloody war or a sickly season;' but these gentry were got quit of as speedily as possible, whenever they had served the purpose for which they were enlisted. At present, we are a great deal too nice as to our recruits, in my opinion, as symmetry of form is now an indispensable requisite for a soldier. Large, broad, or splay feet, for instance, are at present inadmissible; a regulation which amounts almost to a virtual exclusion of the inhabitants of the highlands of Scotland from his majesty's service; a service, of which, according to themselves and Colonel David Stewart, of Garth, they are so exclusively the ornaments." (DUNLOP.)

Those who are curious on the subject of *splay* or *flat foot*, and the disability caused by it, for military life, will see extracts from Marshall's last work, (including observations by Goercke, the head of the Prussian military medical department,) in *Edinburgh Med. and Surg. Journal*, vol. xxxviii. p. 178.

them extended on their backs. In 52 cases thus examined, the perpendicular was found less than the horizontal height, by an average of $\frac{3}{16}$ of an inch.

Of 57,894 recruits examined in the Centre Recruiting District, Dublin, from Sept. 25th, 1804, to Dec. 24th, 1827, 44,166 were approved, and 13,728 rejected, being a proportion of 23·7 per cent.

Of 11,735 men drawn for military duty in the department of the Seine, from 1816 to 1823 inclusive, 5,905 were rejected for the following causes:—

Low stature.....	1,483
Deformity.....	1,021
Infirmities or diseases.....	3,401
	<hr/>
	5,905

If we deduct from the total number drawn, those who were rejected for “low stature,” we shall find that 43·1 per cent. were incapacitated for the military service by physical deformities and disease.

Some of these tables possess an interest beyond their applicability to the present subject, in consequence of indicating the frequency of various diseases. Thus in Dublin from 1804 to 1824 inclusive, out of 42,740 examined, 10,279 were rejected for the following causes:—

Unhealthy aspect.....	1,792
Scrofula.....	381
Defective vision.....	441
Defective hearing.....	136
Ulcers or cicatrices.....	1,659
Varices.....	816
Hernia.....	920
Fistula.....	31
Chronic cutaneous affections.....	318
Congenital deformities.....	64
Chronic enlargement.....	473
Fracture, displacement.....	155
Malformation.....	898
Syphilis.....	291
Epilepsy.....	45
Incontinence of urine.....	12

Fatuous or insane.....	67
Traces of corporal punishment.....	185
Paralysis.....	21
Anomalous.....	254
Disabled upper extremities.....	493
Disabled lower extremities.....	827

 10,279*

The following is a tabular view, by Dr. Casper, of the number of men rejected under the recruiting system in France in 1831-32-33, and the diseases or defects under which they labored. The uniformity between the different years is quite remarkable:—

	1831.	1832.	1833.
Deficiency of fingers.....	752	647	743
Deficiency of teeth.....	1,304	1,243	1,392
Deficiency of other limbs.....	1,605	1,530	1,580
Deafness and dumbness.....	830	736	725
Swellings of the glands of the neck....	1,125	1,231	1,298
Lameness.....	949	912	1,049
Other deformities.....	8,000	7,630	8,394
Diseased bones.....	782	617	667
Near-sightedness.....	948	891	920
Diseases of the eye.....	1,726	1,714	1,839
Itch.....	11	10	10
Scald head.....	749	800	794
Tetters? (or Leprosy).....	57	19	29
Other skin diseases.....	937	983	895
Scrofula.....	1,730	1,539	1,272
Diseases of the chest.....	561	423	859
Hernia.....	4,044	3,579	4,222
Epilepsy.....	463	367	342
Other diseases.....	9,168	9,058	10,286
Debility.....	11,783	9,979	11,259
Under size.....	15,935	14,962	15,078
Totals.....	63,459	58,870	63,653
Force of the class.....	295,978	277,477	285,805

[The aggregate of the classes included in this table being 859,260, and that of rejections 185,982, it follows that 21·64

* Edin. Med. and Surg. Journal, vol. l. p. 16. Additional tables will be found in ibid. vol. xlii. p. 46; Marshall's Hints, p. 187; London Med. and Phys. Journal, vols. l. and liii.

per cent. of the conscripts were pronounced unfit for military service. If, however, we deduct from the whole conscription the 45,975 "under size," we have an aggregate of 813,285, of whom 140,007, or 17.21 per cent., were rejected for defects coming under the cognizance of the physician.

In regard to the relatively high ratio of rejections in the department of the Seine, as compared with the Dublin district, (*vide supra*,) it is to be remembered that the former is in fact the city of Paris, and that in the latter, recruits were examined from both town and country. Of the former, the rejections during a period of three years, according to Marshall's tables, averaged 30, and of the latter, only 8 per cent.; it must be observed that these last were second inspections of men approved at subordinate stations. The average percentage of rejections in Great Britain, from 1817 to 1837, calculated from tables by the same authority, was, in Ireland, 27.4; in Scotland, 27.8; in England, 26.2; mean, 27.1 per cent.

It is thus shown that the average number of French conscripts found unqualified for army service is less than that of English recruits; but no definite conclusion respecting the relative physical development of the two nations is to be drawn from these data, because the object in France is to secure the service of every one who can legally be enrolled, while in England, it is to reject all concerning whose ability to perform the arduous duties of a soldier there is reasonable doubt.

It has been stated on good authority, that in the Peninsular war "four out of ten recruits from the agricultural districts died in a few months, while six out of ten recruits from the manufacturing districts died in the same period." "To obtain 100 men fit for service, it was found necessary to examine 343 of the poorer classes, while the same number was obtained from 193 persons in better circumstances." "Out of 613 men from manufacturing towns in England, only 238 were approved for service."

In the United States, the voluntary system for recruiting prevails. The recruiting service for the army is conducted by

the Adjutant-General, under the direction of the Secretary of War. The regulations for this branch of the military service, though clear and explicit, have at no time approached, in minuteness of detail, the *Code de la Conscription*, and it may be doubted whether this were necessary, the object being to prevent the enlistment of those who were likely to become a burden to the service, and to get speedily rid of those who might gain admission into the army by concealing physical or moral disabilities. By the regulations now in force, the duty of deciding upon the efficiency of a recruit depends primarily upon an examination by one recruiting and one medical officer. Every consideration touching the economy and efficiency of the army demands that this examination be very thorough in every particular. "It is the duty of the recruiting officer to be present at the examination of the recruit by the medical officer." The recruiting officer is responsible for the age, stature, moral character, (under which head are classed all marks of punishment, as D., desertion; H. D., habitual drunkard;) and for the recruits being well formed. The responsibility of the medical officer extends to "all bodily defects and mental infirmity which would in any way disqualify the recruit from performing the duties of a soldier." The regulation governing the examining surgeon is as follows: "In passing a recruit, the medical officer is to examine him stripped; to see that he has free use of all his limbs; that his chest is ample; that his hearing, vision, and speech are perfect; that he has no tumors, or ulcerated or extensively cicatrized legs; no rupture or chronic cutaneous affection; that he has not received any contusion, or wound of the head, that may impair his faculties; that he is not a drunkard; is not subject to convulsions; and has no infectious disorder, nor any other that may unfit him for military service." The approved recruit is transferred from the rendezvous to a depot, where, two days after his arrival, he is again minutely and critically inspected. Every detachment of recruits ordered from a depot to any regiment or station, must be inspected immediately preceding its departure, and once more on the third day after its arrival at its

station. These several inspections are made by the commanding officers and surgeons of depots and stations, and recruits judged by them to be unfit for service, must be brought before a board of inspectors "composed of the three senior regimental officers present on duty with the troops, including the commanding officer, and the senior medical officer present." In each case of rejection, the board is required to state the reasons therefor in a special report to the Adjutant-General, for the final decision of the Department of War. The board is also required to report "whether the disability or other cause of rejection existed before enlistment, and whether with proper care and examination it might have been then discovered." Until recently, when a recruit was discharged in consequence of the non-observance of the regulations by the recruiting officer or examining surgeon, the officer in fault was charged with the amount of the bounty and clothing which the recruit had received. Recruits are to be "vaccinated when it is required."*

The following statistical tables relating to the recruiting service in our army, when considered in connection with those already given, will, it is believed, be found of sufficient interest to warrant their introduction here. They are condensed from a somewhat extended series of "Statistics of the Recruiting Service," which form part of an official report recently prepared under the direction of the Surgeon-General of the Army.†

[* This epitome of army regulations is substituted for the text of the last edition, for the purpose of giving the rules subsequently adopted and now in force. For further information on this subject, reference is made to the official "Regulations for the Army of the United States, 1857;" to "Hints on the Medical Examination of Recruits for the Army, and on the Discharge of Soldiers from the Service on Surgeon's Certificate." By Thomas Henderson, M.D., Assistant Surgeon United States Army, etc. etc. A new edition, revised by Richard H. Coolidge, M.D., Assistant Surgeon United States Army. Philadelphia, 1856; and to the "Manual of the Medical Officer of the Army of the United States." By Chas. S. Tripler, M.D., Surgeon United States Army, etc. etc. Cincinnati, 1858.—R. H. C.]

† Statistical Report on the Sickness and Mortality in the Army of the United States, compiled from the records of the Surgeon-General's office;

The report shows that the persons who seek enlistment in time of peace are principally newly arrived immigrants, the idle, the improvident, and those who are broken down by bad habits and dissipation. In illustration of this, statistics of recruits enlisted and rejected in 1852 are given, of which a summary is here presented:—

Examined, 16,064. Rejected, 13,338. Enlisted, 2,726,—
or 16.9 per cent.

CAUSES OF REJECTION.

Minors.....	3,162
Under size.....	1,806
Over age.....	732
Moral disability.....	106
Intemperance.....	1,965
Malformed.....	243
Unsound constitution.....	630
Mental disability.....	16
Impaired vision.....	114
Impaired hearing.....	55
Ruptured.....	314
Varicose veins.....	1,071
Letter D. branded.....	51
Extreme ignorance.....	32
Married.....	657
Cannot speak English.....	2,434

Although in time of peace the majority of recruits are foreigners, the reverse occurs in time of war. Of 5,000 enlisted in 1850 and 1851, 1,484 were Americans, and 3,516 were foreigners, while of the same number enlisted during the war with Mexico, 1,361 were foreign born, and 3,639 were natives of this country.

The tables which follow, show to some extent the distribution of diseases and malformations among nations and trades.

embracing a period of sixteen years, from January, 1839, to January, 1855. Prepared under the direction of Brevet-Brigadier General Thomas Lawson, Surgeon-General United States Army, by Richard H. Coolidge, M.D., Assistant Surgeon United States Army. (*Senate Document*, No. 96, Thirty-Fourth Congress, first session.)

The first table gives the causes of rejection in 5,000 instances; the second, the cause and number of rejections in 8,000 persons examined; 1,000 in each trade specified.

TABLE I.

CAUSES OF REJECTION.	Americans.	Germans.	English.	Irish.	Europeans.	Total.
Not robust, too slender.....	138	95	96	61	77	467
Unsound and broken down constitutions.....	74	91	63	68	131	427
General unfitness.....	28	27	23	32	40	150
Imbecility, unsound mind.....	9	11	5	11	6	42
Epilepsy.....	3	.....	4	4	4	15
Intemperance and bad habits.....	86	24	113	102	28	353
Hernia, and lax abdominal rings.....	53	97	53	48	92	343
Varicose veins and varicocele.....	163	177	184	183	170	877
Hemorrhoids.....	36	25	35	34	9	139
Syphilis.....	16	24	30	25	28	123
Gonorrhœa.....	12	10	12	11	9	54
Loss of teeth.....	13	6	7	12	5	43
Unequal length of limbs.....	6	12	16	9	9	52
General malformation.....	13	37	13	20	27	110
Malformation of fingers, toes, and feet..	24	48	24	34	29	159
Malformed and contracted chest.....	87	39	46	36	52	260
Spinal curvature.....	17	20	19	16	26	98
Old injuries, fractures, etc.....	60	52	47	44	60	263
Cicatrices.....	11	10	18	22	17	78
Tumors.....	3	6	7	14	4	34
Disease of bones and joints.....	10	18	26	19	11	84
“ “ skin.....	22	35	23	49	20	149
“ “ heart.....	5	7	6	3	12	33
“ “ testis and tunica vaginalis....	14	18	22	25	31	110
“ “ anus.....	1	3	2	6	3	15
“ “ eyes.....	30	28	27	39	20	144
“ “ ears.....	1	1	.....	1	.....	3
“ “ glands.....	8	7	2	8	.....	25
“ “ chest and throat.....	5	8	11	7	10	41
“ “ abdomen.....	8	4	5	4	3	24
Defective hearing.....	4	.....	6	4	.....	14
“ “ vision.....	11	13	12	10	14	60
Ulcers.....	22	29	22	18	37	128
Goitre.....	.....	16	2	2	7	27
Ascites and anasarca.....	.....	.....	2	7	4	13
Obesity.....	1	.....	3	1	3	8
Letter D.....	5	2	14	11	2	34
Defective speech, stammering.....	1	.....	.....	.....	.....	1
Total.....	1000	1000	1000	1000	1000	5000

TABLE II.

CAUSES OF REJECTION.	Laborers.	Farmers.	Bakers, saddlers, and weavers.	Clerks, students, and teachers.	Blacksmiths, and workers in metals.	Shoemakers.	Tailors.	Carpenters, and workers in wood.
Not robust.....	51	27	50	43	28	64	61	35
Unsound constitution.....	27	38	43	40	31	29	33	27
Imbecility.....	29	40	8	20	16	16	6	14
Intemperance.....	49	35	29	33	45	53	57	32
Lax abdominal rings.....	21	9	3	3	1	3	2	2
Hernia.....	17	14	23	10	16	14	14	19
Varicose veins.....	68	69	78	64	83	38	37	69
Hemorrhoids.....	18	10	8	27	9	19	9	9
Syphilis and gonorrhœa.....	6	20	6	17	9	8	14	11
Loss of teeth.....	4	5	7	7	3	3	2	4
Malformations, general.....	25	20	39	21	22	25	16	18
Malformations of chest.....	16	32	19	41	17	30	19	13
Injuries, fractures, etc.....	25	29	26	13	24	19	22	29
Tumors.....	5	6	3	2	3	2	5	3
Diseases of bones.....	4	9	6	9	12	6	4	4
“ “ skin.....	12	12	16	15	12	9	12	5
“ “ chest.....	2	6	2	6	2	3	3	5
“ “ heart.....	1	.....	5	5	2	4	3	.....
“ “ testis.....	6	10	8	9	7	7	15	8
“ “ eyes.....	22	17	11	14	8	7	9	3
“ “ ears.....	.....	.....	1	1	1	.....	.....	1
“ “ glands.....	5	1	2	2	.....	2	.....	.....
Defective hearing.....	1	.....	1	2	1	2	.....	2
“ vision.....	2	7	8	9	3	2	5	1
Ulcerations.....	11	4	9	5	9	1	6	11
Disease of abdomen.....	1	4	1	2	1	1	1	2
Letter D.....	5	3	2	.....	3	.....	4	1
Total.....	433	427	413	420	368	367	359	328

R. H. C.]

The following regulation is in force in the Recruiting Service of the Navy: “The surgeon or other medical officer who may be appointed to examine persons offering to enter, or upon their first joining a receiving or other vessel after enlistment, shall not certify to the fitness of any person, unless he shall be of sound mind, possess the power of seeing and hearing distinctly, and have no serious impediment of speech; have the free use of his muscles and joints; the proper use of his hands and feet; be free from external and internal tumors, and from all cutaneous diseases and chronic ulcers; nor if his

appearance indicates the presence of or danger from consumption, scrofula, or dangerous diseases from the effects of intemperance or other causes; nor if known to be subject to epilepsy or similar diseases."

The vagueness and imperfections of this last are severely commented upon by Dr. Ruschenberger,* and particularly the exclusion in consequence of cutaneous disease of any kind, and of *internal tumors*. Nor is the direction as to the liability to disease from various causes less exceptionable. The regulations in question were drawn up by a *Board of Captains in the Navy*.

The only other American publication with which I am acquainted, is a report made by the late Dr. Samuel L. Mitchill, then surgeon-general of the militia of this State, to his Excellency Governor Clinton, and communicated to the legislature at their session in 1819.† The bodily disabilities for military service are arranged by Dr. Mitchill into classes, with reference to various parts of the body. The diseases enumerated by him are, however, all included in the tables that have been quoted, and it is therefore not necessary to repeat them.

I have met with some adjudications under the militia law of Massachusetts, which it may be proper to mention. They were made in consequence of appeals from justices of the peace to the supreme court. In one, the individual was fined because he had not a surgeon's certificate, countersigned by the commanding officer,—although he offered to prove then by the surgeon of the regiment that he was infirm and not capable of doing military duty. The court held that he should have been allowed to prove his disability, although he had no certificate. The law has reference to an exemption for a term of time, and not for one day.‡

* Marshall on the Enlisting, Discharging, and Pensioning of Soldiers, second edition, (reprinted in Dunglison's American Library,) with the Regulations for the Recruiting Service in the Army and Navy of the United States; and a Preface. By W. S. W. Ruschenberger, M.D., Surgeon United States Navy, etc. 8vo., Philadelphia, 1840.

† Assembly Journal for 1819, p. 25.

‡ *Howe v. Gregory*, 1 Massachusetts Reports, 81.

In another, the surgeon gave a certificate in 1807, that the soldier, by a wound in the left hand, had his thumb and fingers rendered useless, and is unable to perform military service. The captain on this discharged him for life. He was now, (1808,) nearly two years subsequent, fined for not appearing. The court determined that this was not necessarily an excuse for life, but that the justice before whom he is sued may inquire whether the disability continues.*

I cannot conclude this section without recommending that tables founded on those which I have given should be prepared for the use of surgeons, and that they should be enjoined to grant certificates according to their specifications, and be obliged to report to a superior authority all cases not coming within them.

As to certificates, I have already stated that, in this State, "no fee or reward is to be taken for them."

By the French law, "all officers of health and others convicted of having given a false certificate of infirmities or disabilities, or of having received presents or gratifications, shall be punished by not less than one, nor more than two years imprisonment; or, by a fine of not less than 300, nor more than 1000 francs."†

In cases of discharges for various disabilities, and where the possession of these entitles the holder to pensions or gratuities, it is evident that much care must be taken to prevent imposition. Here, however, the directions given in the remarks on feigned diseases are more particularly applicable.‡

* *Commonwealth v. Bliss*, 9 Massachusetts Reports, 322. See also the same vol., pp. 11, 456, 540.

† *Edin. Med. and Surg. Journal*, vol. vi. p. 139.

‡ The reader will find in every page of Marshall, the great caution that it is requisite to pursue in the English service, previous to granting these. In the Austrian service, several medical boards sit in succession, in judgment on each other, before the soldier is discharged, and they are held responsible for errors, and may be called upon to refund the amount of any expenses that have thereby been incurred. Marshall, quoted in *Medico-Chirurgical Review*, vol. xxi. p. 260.

CHAPTER III.

IMPOTENCE AND STERILITY.

Laws of various countries concerning impotence as a cause of divorce—Roman law—Canon law—Ancient French law—Napoleon code—English law. Causes of impotence in the male—absolute—curable—accidental or temporary. English, French, and Scotch law on accidental causes as affecting paternity. Banbury peerage case. Diseases that may produce temporary impotence. Causes of impotence in the female—incurable and curable. Causes of sterility—incurable and curable. Notice of English law cases, where impotence was presented as a cause of divorce. Law of the State of New York on this subject—cases—in other States.

A KNOWLEDGE of this subject may become necessary in various ways before judicial tribunals. An individual accused of committing rape, has been known to plead that he was physically incapacitated; while the legitimacy of children has been contested on a similar plea. These examples are sufficient to show the necessity of a brief notice of the physical signs of impotence, even were they not connected with the subject of divorce.

The laws of Moses, and afterwards the Roman law, permitted divorce at the pleasure of either party. The Christian law, however, declares marriage to be indissoluble; and Justinian, legislating on this principle, was the first monarch who prescribed the mode of obtaining divorce by law, and at the same time promulgated statutes as to impotence. He ordained that if the imbecility continued for two years after marriage, (which period was afterwards enlarged to three years,) the female should be entitled to divorce.*

* Code Justinian, lib. v. tit. 17.

We are informed that it was not until the twelfth century that this jurisprudence came into general use. The canon law, under which these cases were judged, always desired (at least in practice) that the defect should be shown to have existed before marriage; and that after its celebration, a certain period of time should have elapsed before a complaint was entertained, in order to ascertain whether the impotence was absolute, or only accidental. These dispositions of the canon law were adopted into the civil law of ancient France; and many arrêts of parliament have admitted the plea of impotence, and dissolved marriages of eight, twelve, and even fourteen years' standing. Accidental impotence, however, in the sense I shall hereafter define it, was never deemed a just cause of divorce by any of these tribunals. In 1759, the parliament of France refused the application of a female, whose husband had been declared impotent during his first marriage, on the principle that at his second nuptials, several years after, the physicians declared that he appeared to be cured of his disease.*

The Napoleon code does not expressly declare that absolute and incurable impotence is a dissolving cause of marriage; but the course of legal proceedings under it leads to this conclusion. The court of appeals at Treves, in 1808, in the case of a female, directed that she should be visited by medical men, who were to report to that tribunal whether the supposed injury occurred before or after marriage, and whether it was remediable.†

* Foderé, vol. i. p. 361. It will astonish those who have not attended to this subject, to learn that there was a period in French jurisprudence when actual congress was a judicial proof in cases of impotence. At first it was conducted in a private manner, but afterwards became shamelessly public. This prevailed from the thirteenth century until the year 1677, when it was solemnly abolished, in consequence, as it would seem, of the case of the Marquis De Langley. His wife declared him impotent; the congress was ordered, but without success; and his marriage was annulled in 1659. He married again and had seven children. (*Dictionnaire des Sciences Medicales*, art. *Congres*, by Mare; Mahon, vol. i. p. 70)

† Foderé, vol. i. pp. 362, 363. Devergie, and with him are several lawyers and physicians, is of opinion that impotence is not a legal cause of divorce by the French code, and that the court have not the power to make the

The law of England, as laid down by Blackstone and his editor, is as follows: a total divorce is given whenever it is proved that corporeal imbecility existed before the marriage. In this case the connection is declared to have been null and void, *ab initio*. Imbecility may, however, arise after marriage; but it will not vacate it, because there was no fraud in the original contract, and one of the ends of marriage, the procreation of children, may have been answered.*

There is, however, one case on record which was decided on very different principles. I refer to that of the Earl of Essex, in the reign of James I. His countess transferred her affections to the royal favorite, Viscount Rochester, (afterwards Earl of Somerset;) and being desirous of a divorce, complained that her husband was impotent. She deposed, that for the space of three years they had lain together, and during that time he had repeatedly attempted to have connection with her, without success. She also stated that she was still a virgin; and several peeresses and matrons, who were directed to examine her, corroborated this statement, although it is mentioned that she substituted a young female of her own age and stature in her place during the examination. She was also pronounced to be well fitted for having children. The earl, in his answer, admitted his inability to know her; while he denies his impotence as to other females, and insinuates his belief of her incompetency for copulation. After the examination of numerous witnesses, objections were raised by Abbot, the Archbishop of Canterbury, and one of the king's delegates on this trial, on the propriety of dissolving the marriage on such grounds: to which the king vouchsafed an angry reply. It was finally decided, by the vote of seven delegates, (five being absent, and not consenting,) that the marriage should

above decree. The intention of this omission, according to him, was to avoid a repetition of the scandalous scenes of former times. The article of the code, 180, is at best equivocal. I give it in the original. "*Lorsqu'il y a eu erreur dans la personne, le mariage ne peut etre attaque que par celui des deux epoux qui a été induit en erreur.*" (*Devergie*, vol. i. p. 384.)

* Blackstone's Commentaries, with notes by Christian, vol. i. p. 440.

be dissolved, and the parties allowed to contract new marriage ties.*

The causes of impotence have been variously divided by different writers; but I conceive that I shall be best enabled to give a comprehensive view of them, by adopting the arrangement of Foderé, into *absolute*, *curable*, and *accidental or temporary*.

We shall first notice those in the male.

The absolute causes of impotence, or those for which there is no known relief, principally originate in some malconformation or defect in the genital organs, and these may be either natural or artificial. To this class we refer the following—an absolute want of the penis. Cases are frequently met with in medical works, where it is stated that the ureters were found terminating in the perinæum, or above the os pubis. Foderé observes that he cured a young soldier of incontinence of urine, in whom there was a fleshy excrescence, like a button, in the place of the penis, and at which the ureters terminated: the testicles were well formed. Many cases are also on record of the penis being impervious.†

* Hargrave's State Trials, vol. i. p. 315. See also note 1 in the Appendix to vol. viii.; being a narrative of the proceedings on the trial, drawn up by the Archbishop of Canterbury. In the speech which he intended to have delivered on giving his opinion, he relates the case of one Bury, tried in 1561. His wife cited him before the ecclesiastical court on the ground of impotence; and the physicians deposed that he had but one testicle, and that no larger than a bean. The want of access was also proved. A sentence of divorce accordingly passed. After some time Bury married again, and had a son by his second wife. A question arose, after the lapse of some years, whether the offspring was legitimate; and it was decided that *the second marriage was utterly void*, because the ecclesiastical court had been deceived in the opinion they had given on the impotency of Bury. (Page 23 of the Appendix.)

† A most valuable and learned essay on this subject may be found in the Edin. Med. and Surg. Journal, vol. i. pp. 43 and 132, entitled "An attempt toward a systematic account of the appearances connected with that malconformation of the urinary organs in which the ureters, instead of terminating in a perfect bladder, open externally on the surface of the abdomen, by Andrew Duncan, junior, M.D." See particularly Matthew Ussem's case, and page 54, on the genital organs of the male.

In addition to this, have been enumerated an amputation of the virile organ—a scirrhus or paralytic state, induced by

Dr. Duncan enumerates 49 cases, of which 41 are of the male and 8 of the female. The following may be added to his catalogue: 1, 2. Two cases by Dr. Maitland, of Blackburn, Lancashire. In one, the ureters terminate in a fungoid tumor, at the lower part of the abdomen—testicles in each groin, penis an inch long, and imperforate. In the other, the ureters end in a tumor in the pubic region—penis imperforate—testicles natural, (*Edinburgh Med. and Surg. Journal*, vol. xxv. p. 31.) 3. By Dr. Vernon, in a child—the usual tumor, (*ibid.*, vol. xxvii. p. 81.) 4. By Dr. Palmer, of Lanesborough, Massachusetts. The child was living, aged two months, in November, 1836, (*Boston Med. and Surg. Journal*, vol. xv. p. 377.) 5. A case quoted from the *Gazette Medicale* of May, 1835. Pierre L. Vallee, aged ten years, (*Lond. Med. and Surg. Journal*, vol. vii. p. 534.) 6. A case by Velpeau, in *Memoirs of the Royal Academy of Medicine*, vol. iii.; *Edin. Med. and Surg. Journal*, vol. xlviii. p. 445.

Additional cases are given by Dr. Schmitt, of Wurzburg, in his essay on *Congenital Deficiency of the Urinary Bladder*, 1836, (*Amer. Journal Med. Sciences*, vol. xx. p. 183;) by Dr. Handyside, (with a figure,) in *Edinburgh Med. and Surg. Journal*, vol. lii. p. 422. This is a curious case. The testicles are of the natural size. The glans penis alone is perceptible, an inch and a half long, cleft and imperforate; Mr. Earle, *ibid.*, xii. p. 797; by Messrs. Argent and Curtis, *Lancet*, N. S., vol. xxvi. pp. 229, 300; by Dr. Chowne, *ibid.*, vol. xxvi. p. 937, and vol. xxix. p. 374, *Dissection*; Mr. Grantham, *London Med. Gazette*, vol. xxviii. p. 791; Dr. Magee, of Patterson, New Jersey, of a female, *New York Lancet*, vol. i. p. 225.

There are three American cases which have been described and figured. One was seen at New York, where the individual died in the State Prison in 1826, aged 52 years. There was a fleshy mass in the pubic region, and the ureters terminated in this. The penis was imperforate and about an inch long, the testicles large and well formed. The individual repeatedly stated that his venereal desires were violent. Plates of this case, with descriptions, are given by Drs. Ducachet and Charles Drake, (*Medical Recorder*, vol. iii. p. 515, and *New York Med. and Phys. Journal*, vol. v. p. 443.) Another has been described and figured by Dr. Hayward, of Boston. This individual came into the Massachusetts General Hospital, in June, 1832. He was a native of the State of Maine, aged 21, and in good health. There was an oval fungous tumor, six inches in circumference at the base, and projecting one inch and a quarter from the abdomen, directly over the ordinary place of the symphysis pubis. The ureters terminated in this, and the urine passed out in drops. The penis was short, only two inches long,—measuring five inches in circumference at its root, partly divided and united at the under surface only. The testes were perfect. He has sexual desire, and, when under the influence of it, the penis becomes erect, and sometimes a dis-

injury to the nerves or muscles of the parts—and an unnatural perforation of the penis; or, in other words, the extremity of the canal of the urethra, terminating at some place other than its natural situation. When this happens on the upper part, it is styled *Epispadias*; when below, *Hypospadias*. We shall, however, see that it would be unsafe to consider all or most of these as absolute causes of impotence. Thus, Piazzoni relates a case where both the corpora cavernosa were destroyed, but as the canal of the urethra was preserved, the act could be performed.* So also with the varieties in the termination of the urethra. Belloc says that he knew a person at Agen, in whom the orifice was at the bottom of the frænum, and who had four children resembling their parent, and, what is still more remarkable, two of them had the same malconformation. The possibility of impregnation may therefore depend on the distance to which the orifice is thrown back.†

charge of seminal fluid takes place from the ureters. Dr. Hayward states that one other case of this kind has come under his observation, but he had not an opportunity of examining it minutely. (*Boston Med. Magazine*, vol. i. p. 91.)

The third occurred to Dr. Dunglison, in Philadelphia, and is figured by Dr. Duffee. It resembles in most of its characters the cases above recorded. The individual was about eight years old, and dressed in female attire, (*American Med. Intelligencer*, vol. i. p. 138.) Another case is mentioned by Dr. Pancoast, (*ibid.*, vol. i. p. 147.) *Boston Med. and Surg. Journal*, vol. xliv. p. 229, case by Dr. Ayer, of Boston.

* Paris, *Med. Jurisprudence*, vol. i. p. 205. A case is related by Mr. Hurd in the *London Med. and Surg. Journal*, vol. iv. p. 323, in which the patient, after suffering severe disease, such as phagedenic inflammation, with the formation of excrescences, was relieved by complete amputation. There was only a very small protrusion of the organ on pressure, yet he had, subsequent to this, two children.

† Belloc, p. 50. I will mention in this place, the cases I have noticed, and whether they were impotent or not.

Hypospadias—a case is mentioned by Zacchias, fruitful.

Dr. Hosack—the same. (*New York Med. and Phys. Journal*, vol. ii. p. 12.)

Dr. Dewees—the same. (*Coxe's Medical Museum*, vol. i. p. 165.)

Mr. Syme—the same. (*Edinburgh Medical and Surgical Journal*, vol. xxxiii. p. 243.)

Frank has seen a case transmitted through three generations. Kopp saw a peasant near Hanau, with five children, in whom the opening was 11½

The inability to propel the semen out of its vessels, is frequently to be considered as an absolute cause; but generally it is a curable one.* I mention it, however, in this place, for the purpose of stating, that in several instances of this nature, there have been found, after death, a diseased state of the prostate gland, or extensive strictures of the urethra.

lines from the extremity of the glans. (Dict. des Sciences Med., vol. xxiii., art. *Hypospadias*, where other cases are cited; also vol. xxiv., art. *Impuissance*.)

The case of Dr. Schweikard, in the same work, art. *Hermaphrodisme*, doubtless belongs here. "At the root of the glans was an oval opening; this was the urethral orifice through which the urine passed. This man had several children." (Ibid., vol. xxi. p. 96.)

Dr. Gunther—two cases, fruitful. (London Medical Repository, vol. xxv. p. 185.)

"I know an individual, the father of a very fine child, marked strongly with the paternal resemblance, and in his person, the urethra opens in the corpus spongiosum, between one or two inches from the glans." (Dr. *Blundell*, in *Lancet*, N. S., vol. ii. p. 771.)

For other cases, in persons below the age of puberty, see Edin. Med. and Surg. Journ., vol. xxxii. 246; Littel's Monthly Journal Foreign Med., vol. i. p. 189.

London Med. Gazette, vol. xiii. p. 878, a case of hypospadias, cured by Dupuytren.

Epispadias—much rarer than hypospadias. The commandant of the depot for the examination of recruits at Paris has not noticed one case, among 60,000 inspected. Dr. Baron, also of great experience, has met with 300 cases of hypospadias, and only two of epispadias. (*Bulletin de L'Academie Royale de Paris*, vol. ix. p. 63.)

Cases.—Dr. Marchal, (De Calvi.) The penis when erect is about two inches long. The glans is divided into two parts, and the urine is discharged horizontally. This person is not impotent. (Ibid., p. 62.)

Hipp.—Larrey, in a child, two years old. In his letter on this, he enumerates most of the cases recorded, being some ten or twelve. Some were complicated with extrophy of the bladder, and there are a few stated to have been impotent. (Ibid., p. 68.)

Dr. Barth.—A person aged eighteen years—has erections. (Ibid., p. 81.)

Dr. Cramer.—London Med. Gazette, vol. xiii. p. 878; from Hecker's Journal.

* Morgagni declared a case, where the patient was thirty years old, and all the parts were properly formed, to be incurable. This opinion was founded on the idea that some of the internal organs were diseased. (Opuscula Miscellanea, p. 34. *Responsum Medico-Legale super seminis emit-tendi Impotentia*.)

The natural want of both testes, provided that ever occurs, or their artificial loss, is another cause. The removal of them by excision, and the frequency of this practice in some countries, is well understood. I may add that there have been instances in which these organs have suddenly diminished and disappeared, as a consequence of disease or external injury.* The point, however, which excited most discussion in former times was, whether individuals born without any appearance of testes, but who in other respects have the activity and strength that belong to the male sex, are to be considered impotent. It is generally believed not; since it has been well ascertained, that in many instances these organs have not descended from the abdomen, and yet the individual has exhibited every proof of virility.† Considerable attention should be di-

* Foderé, vol. i. p. 369. He observes that he has witnessed several cases of this kind in deserters, condemned to labor on the canal at Arles. Larrey also states that many soldiers of the army in Egypt were attacked with a similar complaint. The testes lost their sensibility, became soft and diminished in size, until they were no larger than a white French bean. No venereal disease had preceded these attacks. When both testes were affected with this atrophy, the patient became impotent—the beard grew thin and the intellect weak. He attributes it to the use of the brandy of dates. (*Larrey*, vol. i. p. 360.)

Severe blows, fractures, etc. on the back of the head would also seem to cause impotence. See case in Hennen's *Military Surgery*, 2d edition, p. 303; also one from Hildanus, quoted in *Medico-Chirurgical Review*, vol. iv. p. 969, and Larrey's *Clinique Chirurgicale* analyzed in the same, vol. xix. p. 16. (*Curling on Diseases of the Testis*.)

“The reverse is sometimes the case, the patient being occasionally extremely salacious. In a case reported by Dr. Donne, of Louisville, Kentucky, in which the cerebellum was wounded by a musket ball, the individual labored under constant priapism until the very moment he expired.” (*Prof. Gross*, in *Western Journal Med. and Phys. Sciences*, vol. x. p. 45.)

There is a case related in the *Provincial Med. and Surg. Journal*, in which a severe blow on the lower part of the spine, and also on the occiput, was followed by an atrophy of the testicles and a great enlargement of the breasts. (*Med. Examiner*, vol. viii. p. 258.)

† “During the examination of 10,800 recruits, I have found five in whom the right, and six in whom the left testicle was not apparent. In two of those cases, there was inguinal hernia at the side where the testicle had not

rected to the external appearance of the person—his muscular system, the strength of his voice, the presence of the beard, etc. The medical examiner should also examine whether any cicatrix is to be found in the scrotum, indicating castration; or whether, in the room of the testes, there do not exist some hard knots or lumps, proving the existence of former disease.*

descended. I have met with but one instance where both testicles had not descended." (*Dr. Marshall's Hints*, etc., pp. 83, 207.)

In an examination at the Louisville Hospital, of the body of a boatman, aged 27, a testis was found in the left iliac region, with a complete peritoneal investment, and attached by that membrane to the walls of the abdomen. The adhesion was firm, and without any marks of recent inflammation. All the corresponding parts of the opposite side were perfect, and in their proper situations. From the athletic form of the individual, and the full development of the generative organs, it is hardly possible that he could have been impotent. (*Western Journal of Medicine and Surgery*, vol. ii. p. 32; case by Dr. Bayless.)

Professor Eve, of Georgia, mentions another case, of a father of children, in whom the right testicle had not descended, but was found, after death from strangulated hernia, in the abdominal canal. (*American Journal Medical Sciences*, vol. xxvi. p. 355.)

Dr. John D. Fisher, of Boston, relates an interesting case in which, on dissection, both testes were found wanting. The individual died at the age of 45. (*American Journal Medical Sciences*, vol. xxiii. p. 352.)

Mr. Paget, of London, one in which the left testicle was wanting, and the corresponding vas deferens imperfect. (*London Medical Gazette*, vol. xxviii. p. 817.)

Dr. Anderson, of one who had but one testis at birth, and no appearance of the other—is masculine in appearance, aged 35; he was married at 26, and his wife has been repeatedly pregnant, and has now one living child. This individual's grandfather was a captain in the revolutionary war, the father of four children, and was exactly formed as to testicles, like his grandson. (*Philadelphia Medical Examiner*, vol. iv. p. 73.)

* Dr. Gross mentions a case where a too hasty opinion was given. Two lads, the one fourteen and the other eleven years of age, after having resided about two years with the Shakers, in Crosby, State of Ohio, returned to their homes in Kentucky. It was soon after reported that they had been castrated by some of their late brethren; and a practitioner, after examining them, testified to the existence of distinct and well-marked cicatrices in the scrotum of each.

An outrage of this description caused much excitement. Four of the Shakers were imprisoned. Dr. Gross visited and examined all the male children at the settlement, (twelve in number,) aged from two years up to

If these are wanting, and the general appearance is virile, we are not justified in considering the individual as impotent.

A different opinion, however, prevailed in former times. Pope Sixtus V. declared, in 1587, in a letter to his nuncio in Spain, that all those who are destitute of them should be unmarried; and Philip II. accordingly executed this order, which affected many in that kingdom. The parliament of Paris, also, in 1665, decreed that they should be apparent, in order to permit a person to contract marriage.* These, however, are the relics of barbarous ages. Unquestionable facts and anatomical examinations have proved that the conformation in question may be present, without injury to the generative power. Rolfinck relates the case of an individual distinguished for libertinism, who was executed for some crime. He was, after death, consigned to the dissecting knife; and, on examination, the testes were found in the abdomen.† The parents of a young man, in a similar situation, consulted the physician as to the propriety of allowing him to marry. He recommended it, and a numerous offspring demonstrated the propriety of his advice.‡

eighteen, and found nothing wrong. He was then requested to examine the above individuals, who had been brought to Cincinnati for that purpose. The scrotum of each was empty, but there were no scars or cicatrices present, and after a little further search, the testicles were found in the groin, a little below the external ring. They could be pressed into the scrotum, but returned when the fingers were removed. (*Western Journal of Medicine and Surgery*, vol. iii. p. 355)

* Mahon, vol. i. pp. 55, 57.

† Mœbius, quoted by Mahon ut antea. It is stated by Bichat, on the authority of Roux, that very commonly among the inhabitants of Hungary, the testes do not descend until some months, or even years after birth. (*Brewster's Edinburgh Encyclopedia*, art. Anatomy, vol. i. p. 825.)

‡ Mahon, vol. i. p. 55. Additional cases of fruitful marriages, under these circumstances, are mentioned by Dr. Geddings. (*Chapman's Journal*, N. S., vol. iv. p. 34.)

It is, however, proper to subjoin the remarks of Mr. Jas. Wilson on this subject. "When both testicles have remained in the cavity of the abdomen, it has been supposed by John Hunter that they are exceedingly imperfect, and incapable of performing their natural functions." He had met with two cases, one of which seemed to confirm this remark, while the other makes

I may also add, in this place, a cause of impotence, concerning which there has existed a considerable diversity of opinion; and that is, the loss of one of the testicles only. If this deprivation be compensated by the healthy size and condition of the other, we have no reason to dread the effects. This actually occurs in some cases of cynanche parotidea, where there has been a translation of the complaint from the neck to the testes. Dr. Robert Hamilton, in one of the best histories which we have of that disease, mentions that when it was epidemic at Norfolk, in England, a patient was seized with

against it, although it does not altogether refute it. "The first is a young gentleman of very large fortune, now twenty-five years of age. He has some beard, and not an unmanly appearance; but although an imprudent, and in some respects a dissipated person, he has never shown the least desire for women, or disposition for sexual intercourse. The second is between thirty and forty years of age, who has one testicle, forming a tumor within the ring; and the other, which descended at puberty, lying immediately on the outside of it. He is a married man, and has children. Before his marriage, he describes himself as having great desire, and not being deficient in power. He formerly had a venereal gonorrhœa;" and it was from a swelling of the testicles, consequent on this, that Mr. Wilson came to witness his case. One testicle is of full natural size, and the other also appears to be so, as far as can be judged by feeling it through the tendon of the external oblique muscle. (*Wilson's Lectures on the Urinary and Genital Organs*, p. 408.)

Mr. Lawrence has also seen two cases in which the testes remained, and the individuals were impotent. On dissection, the body of the glans was not more than half its natural size; and the epididymis, which was very imperfect, did not join the body of the testes. In a third instance, however, it exactly resembled the last case of Mr. Wilson. It appears, then, says Mr. Samuel Cooper, that more depends on the size and structure of these organs being natural, than upon their natural situation. (*Note to Good's Study of Medicine*, vol. v. p. 7.)

According to Mr. Curling, there are but *three* cases in which the anatomical condition of a testicle situated within the abdomen is described: one by Cloquet, in which the part was of its natural size and shape; one by Sir A. Cooper, both testicles were within the abdomen, and nearly, *if not quite*, of the natural size; and the third, by Bright, where the testis was much smaller than natural, but its structure was perfect. Mr. Curling has seen a fourth, in which it was very small.

He adds, that the only case met with by John Hunter contradicted his doctrine, as both testicles remained in the abdomen, and yet virility was not impaired. (*British and Foreign Med. Review*, vol. xvii. p. 60.)

swelling of both the testicles. One of them wasted away until nothing but its coats were left. This occurred in 1762, and in 1769 he had a child, and in 1772 another; both of whom were healthy.* Mahon also mentions that he was acquainted with a young man, in whom one of these organs gradually diminished and withered away, while the other increased proportionably in size; and after this had taken place, he became the father of five children.† Sir Astley Cooper removed a testis for an enlargement and great hardness, in January, 1821. The wife, by whom he had already had one child, nursed the patient, and in March she proved pregnant.‡ If, however, the remaining testicle be small and extenuated, or have become scirrhus or carcinomatous, or even if the epididymis be tumefied and hard, we have just reason to dread the presence of impotence.

There also occasionally occur cases in which the smallness of the testicles throws doubts on their powers. Dr. Baillie knew a person of middle age, in whom their size did not exceed that of the extremity of the finger. This was congenital, and accompanied with a total want of sexual desire. Mr. Wilson, however, relates the following: "I was some years ago consulted by a gentleman on the point of marriage, respecting the propriety of his entering into that state, as his penis and testicles very little exceeded in size those of a youth of eight years of age. He was twenty-six, but had never felt desire until he became acquainted with his present wife. Since that he had experienced repeated erections, with nocturnal emissions. He married, became the father of a family, and those parts which at twenty-six were so small, at twenty-eight had increased to the usual size of those of an adult man."§

A question, connected with the subject under consideration, was agitated some years since, in Germany. It was, whether a person castrated after he arrives at the age of puberty is

* Transactions of the Royal Society of Edinburgh, vol. ii. art. 9.

† Mahon, vol. i. p. 52.

‡ Medico-Chirurgical Review, vol. xviii. p. 389.

§ Lectures, p. 424.

capable of impregnating for some days after the operation. Marc, a high authority in all such cases, supposed that he must be deemed impotent, as the time needed for curing the wound is sufficient to carry the semen into the blood, and even if capable of two or three emissions, yet he would afterwards be impotent. Orfila states it, as his opinion, that there may be temporary power in such cases, where the extirpated testicles are healthy, but not if tuberculous or scirrhus.* Sir Astley Cooper, in his work on the *Structure and Disease of the Testis*, gives a very apposite case:—

He performed the second operation of castration in 1801, on a person, for chronic abscess in the testes. On visiting him four days after, he informed Sir A. C. that he had, during the last night, an emission. He was a married man previous to the first operation. For nearly the first twelve months after the complete castration, he stated that he had emissions *in coitu*, or that he had the sensations of emission. After that, he had erections and coitus, at distant intervals, but without the sensation of emission. After two years he had erections very rarely and very imperfectly; and ten years after the operation, he said he had, during the past year, been once connected. In 1829, Sir A. C. saw him as a patient. The erections were very seldom, and very imperfect, and the penis was shriveled and wasted.†

To the above, Foderé adds the following, which may possibly in some cases produce the consequence in question, viz.,

* Orfila's *Leçons*, vol. i. p. 127.

† *Medico-Chirurgical Review*, vol. xviii. p. 390. Sedillot mentions that he has heard Boyer relate the case of a man from whom both testicles had been successively removed, on account of sarcocele. After the second operation his wife became pregnant. He consulted Boyer, who told him that the child was no doubt his own, but that it would be his last. (Page 17.)

Similar results have occurred with animals recently castrated, (*American Med. Intelligencer*, vol. i. pp. 146, 244; *Dunglison's Physiology*, 3d edition, vol. ii. p. 320.)

On diseases of the testis and its appendages, the medical and surgical reader will do well to consult Mr. Curling's valuable Monograph, edited in this country by Dr. Goddard.

congenital tumors of a large size; such, for example, as scrotal hernia. This, he supposes, may produce a hardness of the parts, and prevent a secretion of the seminal fluid, by its continued pressure on the spermatic vessels.* The medical college of Western Prussia declared a voluminous and irreducible hernia a sufficient cause of divorce.†

Among the curable causes of impotence may be enumerated the following: An atony of the parts, arising sometimes from local disease or external injury, and at others from masturbation; a retraction of the penis, originating from stone in the bladder, or some other urinary diseases; a natural phymosis, which sometimes confines the glans in such a manner as to prevent the emission of semen;‡ obliteration of the canal of the urethra, from stricture or other causes;§ and lastly, the

* Foderé, vol. i. p. 373. "In Italy, double hernia by pressing on the spermatic chords, sometimes causes as complete emasculation as if the testicles were actually removed; so that many of the fine singers of that country are so by the visitation of God." (DUNLAP.)

We should not forget that extreme youth is an absolute cause. It has been decided, as far back as the reign of Henry VI. in England, that the issue was a bastard, when the husband was within the age of fourteen. See *The King v. Luffe*, 8th East's Reports, p. 205.

† Metzger, p. 494. The following is also an incurable cause, but not discoverable until after death: "A malformation of the epididymis—instead of passing on to the vas deferens, that tube has terminated in a cul-de-sac. I have preserved one of this kind in the collection of Windmill Street," (Wilson's Lectures, p. 423; Paget, in *London Med. Gazette*, vol. xxviii. p. 818.)

‡ Observations on Natural Phymosis and its Effects, by Dr. Houston, in *Edin. Med. and Surg. Journal*, vol. xxxviii. p. 266.

Dr. Marchal, *Bulletin de L'Acad. Royale de Paris*, vol. ix. p. 65. He also mentions an instance of extreme narrowness (natural) of the canal of the urethra.

In Sir George Lee's Ecclesiastical Reports, in a case (*Welde v. Welde*, 1731,) where the husband pleaded capacity, in answer to a charge of impotency, one Williams, a surgeon, swore that Mr. Welde had an external impediment, arising from the shortness of his frænum, which prevented an erection, but that it was now removed, he having cut the same, and that he believed he was now capable. (*Reports*, Appendix, vol. ii. p. 580.)

§ Cases of this description will be found in *Edin. Med. and Surg. Journal*, vol. xxi. p. 315, by Mr. Maclure, of Glasgow; *Medico-Chirurgical Transactions*, vol. xii., by Mr. Arnott.

malconformation, of which we have spoken, as to the place of the aperture of the urethral canal. All these have been successfully obviated by modern surgery.*

Several instances of congenital closure of the urethra are recorded in recent German medical journals. Dr. Zohrer mentions one in an infant nine days old, the termination of whose glans penis was covered with a thickened membrane, continuous with the frænum of the prepuce. The urine exuded through the umbilicus. To remedy this evil, the membrane in question was removed with a bistoury, but no trace of an orifice was seen; and it was not till a stiletto had been plunged to a depth of two lines, that the urethra was met with, and the course of this was afterwards found much impeded by membranous bands. The new passage was, however, established; the urethra was maintained at its proper dilatation by means of a catgut bougie, and the wound and passage of the urine at the umbilicus soon ceased. A nearly similar case occurred in a female infant, in whom a passage of full three lines in depth had to be made before the urethra was reached. (*Oest. Med. Wochensch.*; *Lancet*, August 3, 1843; vol. xxxii. p. 656.)

“Ossification, or a cartilaginous condition of the septum of the penis, may become a cause of temporary or incurable impotence, by preventing copulation. A case of this kind once

* Bushe's Medico-Chirurgical Bulletin, vol. ii. p. 1. The editor gives several cases of hypospadias successfully treated. I subjoin the following uncommon case, as an illustration of the trophies of modern surgery: In 1830, a patient, aged 26, was admitted into the Edinburgh Infirmary, under the care of Mr. Liston. The whole extent of the urethra anterior to the pubes was exposed superiorly, there being a wide fissure through the corpora cavernosa and glans. The penis was retracted considerably, so that the posterior part of the fissure lay behind the symphysis pubis. When he urinated, the urine, after emerging from beneath the symphysis, divided into numerous streams, some of which spread over the sides of the penis, while others passed along the exposed urethra. This malconformation was congenital, and he was impotent. It was remedied by paring off the callous edges of the margin of the fissure, introducing a catheter and uniting the edges by sutures. The penis obtained its natural appearance. (*London Med. Gazette*, vol. vi. p. 252.)

occurred to Dr. McClellan, of Philadelphia. The individual, already considerably advanced in life, but with sexual powers unusually vigorous, was unable to cohabit in consequence of the virile organ being so much arched toward the perineum as to render it impracticable to introduce it into the vagina. On making an incision along the dorsal surface of the penis, the pectiniform septum was found to be converted into a plate of cartilage, the removal of which was soon followed by a complete restoration of the functions of the organ.”*

The third class of causes, the accidental or temporary ones, is the most important, since they are frequently the subject of legal investigation. They are those which affect an individual during his marriage, and of course have to be considered in cases of contested paternity.† The law presumes that the husband is the father of every child conceived during the term of wedlock, yet it allows an investigation as to the chastity of the female. That such is law in our own and other countries, the following extract will prove: “In the case of *Lomax v. Holmden*, tried before the Court of King’s Bench in England, the question at the trial was, whether the plaintiff was the son and heir of Caleb Lomax, Esq., deceased; and this depended on the question of his mother’s marriage. And that being fully proved and evidence given of the husband’s being frequently at London, where the mother lived, access was of course presumed. The defendants were then admitted to give evidence of his inability from a bad habit of body. But their evidence, *not going to an impossibility, but an improbability*

* Dr. Gross, in *Western Journal Med. and Phys. Sciences*, vol. x. p. 46.

† I may mention in this place, a rare case given by Mr. Callaway, of an individual, who, returning home intoxicated, had several connections with his wife during the night. The penis continued in a state of permanent erection after this for sixteen days, resisting all medical and surgical means. An incision with a lancet at the end of this time, produced a copious discharge of dark, grumous blood, and a solution of the erection. The individual is impotent, most probably occasioned, says Mr. C., “by a deposition of coagulable lymph in the cells of the corpora cavernosa, preventing the admission of blood, and consequent distension of the organ.” (*London Med. Repository*, vol. xxi. p. 286.)

only, this was not thought sufficient, and there was a verdict for the plaintiff."*

The proofs of bastardy may be thus, 1. impotence, and 2. proof of non-access, so conclusive that it is *impossible* that the husband could have been the father of the child. This subject, in all its bearings, has of late years been minutely canvassed, in consequence of what is usually styled the Banbury peerage case. Lord Banbury died in 1632, aged eighty-five. In 1627, Lady B. had a son, and in 1630, another. They both lived at the house of Lord Vaux, with whom, it was said, she was in the habit of adultery. In an inquisition held after his death, it was held that he died without heirs male of his body. The son claimed the title in 1646, and his descendants also, from time to time, but the House of Lords either passed resolutions denying the claim, or had no proceedings. In 1806, the lineal descendants of the son succeeded in bringing it to a solemn adjudication. Lord Erskine advocated his cause, and quoted the case of Sir Stephen Fox, who was married at seventy-seven and had four children, the last when he was eighty-one. Lord Banbury was proved to have been hale and hearty at the time of his death. The House, however, decided, in 1813, that the claim had not been made out. The author from whom I draw this narrative observes, that the *concealment*, (which was the fact in this case,) under circumstances which could leave no doubt that the adultery was the *cause* of it, appears to have formed the point upon which the decision was grounded.†

* Strange's Reports, vol. ii. p. 940. I am indebted to Dr. Male for the reference to this case.

† Edinburgh Review, vol. xl. p. 190, an elaborate article on the law of legitimacy. See also London Law Magazine, vol. iv. p. 32; also Head v. Head, (1 Simons and Stuart, 150,) in Peter's Condensed Chancery Reports, vol. i., where the answers of the judges in the Banbury cause are given; the same case, before Lord Eldon, in 1 Turner and Russell's Reports, 138; Le Marchant's Report of the Gardner Peerage case, Appendix, p. 389. On the subject of non-access, the following American cases may be quoted: Commonwealth v. Stricker, 1 Browne's Pennsylvania Reports, App. p. 47;

The French or Napoleon code, although it does not permit a husband to disavow his child, by alleging his *natural impotence*, yet contains a regulation, which, in its effects, operates similarly to the principles contained in the English case above quoted. The 312th article says, that the infant conceived during marriage has the husband for its father, but he may, notwithstanding, disavow it, if he can prove, that from the 300th to the 180th day before its birth, there was, either on account of absence, or *from the effect of some accident*, a physical impossibility of cohabiting with his wife.*

In discussing this subject, it will readily occur, that there is a class of diseases during the progress of which virility may be preserved; while there is another in which it is destroyed. It is not possible, nor indeed would it be proper, to state these, except in a general way; since it is difficult to

Commonwealth v. Shepherd, 6 Binney's Pennsylvania Reports, 283; 2 Paige's Chancery Reports, 180, Cross v. Cross.

By a decision of the House of Lords, *Morris v. Davies*, the notion that it was necessary to show a physical impossibility of access, by the absence of one of the parents beyond sea, is exploded. Access of the husband must still be distinctly negatived, but the non-access may be shown, by circumstances of any kind, sufficient to establish the fact to the satisfaction of a reasonable mind. (*London Law Magazine*, vol. xix. p. 115.)

Wiebeking, an eminent Bavarian engineer, died at Munich, May, 1842, in his eighty-first year, leaving two sons, the elder fifty-one years old, the other only *eleven months*, and a widow only twenty-two. (*Foreign Quarterly Review*, vol. xxx. p. 295.)

See Sir Harris Nicolas on Law of Adulterine Bastardy. Craili's Romance of the Peerage, vol. i. pp. 375, 386.

* Foderé, vol. i. p. 375. "In Scotland it is only necessary that a man should be in a situation where a possibility exists of his cohabiting with his wife, in order to constitute him the father of her children; or, as the law correctly and beautifully expresses it, within the four seas of the realm. There is a case at issue in the Court of Session at this moment, where a Miss McNeil, an heiress, is claimed by two husbands. The one asserts that he married many years ago, and cohabited with her one night only; the other married her since, and has by her a family. But it seems to be the general opinion, that if the first husband proves her to be his wife, the children must be his, as a matter of course." (DUNLOP.)

This case was decided, I believe, as Dr. Dunlop supposed it would be, in favor of the first husband. See McNeil, or Jolly, v. McGregor, 1825, cases in the Court of Session, vol. iv. p. 259.

foresee what may hereafter be adduced in contested cases, as a cause of impotence. We shall therefore be understood to mention the diseases as causing a probability on one or the other side, and not as positive proof.

The diseases that are considered compatible with connection, are those which do not affect the head and sensitive system primarily, and are not accompanied with great debility. Inflammatory and catarrhal fevers are of this class. So also in asthma and the early stages of phthisis pulmonalis, the power is preserved.* Some diseases appear to stimulate the generative organs; and others, although accompanied with pain, are said to excite desire. Of the first, may be named a calculus in the kidneys or bladder; and to the last belong gout and rheumatism.†

A man named Aurelius Lingius, aged sixty years, had been affected, during the two last years of his life, with occasional attacks of fever, accompanied with gouty pains, which at intervals made him extremely ill. For the space of two months, however, he appeared on the recovery; when, being seized with a fever and ague, he died. His wife declared herself pregnant, and six months after his death, was delivered of a healthy child. Its legitimacy was contested, on the ground that the husband, before his last illness, had been incapable; and this opinion was corroborated by his own confession to the physicians attending him. His wife allowed the truth of this statement, but asserted that his powers had returned some time before his decease. In this state of the case, Zac-

* Orfila's *Leçons*, vol. i. p. 136. Louis, a late writer on consumption, denies the truth of this opinion, so far as to limit it only to the earliest periods. In more advanced stages, he is convinced that it decreases with declining strength. The editor of the *London Medical Repository* (vol. xxv. p. 106) remarks on this: "We have no doubt, that in some examples of phthisis, both the propensity and the power to gratify it have existed up to the very day of the patient's death."

† "A friend of mine, who studied in the hospital of New York, informed me that, after recovering from the yellow fever, the patients displayed most furious sexual passion, to the great inconvenience of the nurses and other female attendants." (DUNLOP.)

chias was consulted; and he decided in favor of the chastity of the wife, for the following reasons: Aurelius had been twice married, and by each wife has had several children. The disease under which he labored was a heating one, and his powers were probably perfect during the period of convalescence. His age does not prevent the possibility of his producing pregnancy in the female. Symptoms of this were present during his lifetime; and although he was known to be extremely jealous, yet his affection remained undiminished toward her. And finally, the intervals of ease that accompany articular pains, together with the fact that she always reposed in the same bed with him, were, in the mind of Zacchias, conclusive arguments. The judges decided in favor of the female.*

In connection with the facts already stated, it may be proper to add a circumstance suggested by the author just quoted. He deems it possible that certain diseases may so change the state of the system as to produce an alteration in the generative power. He quotes the testimony of Avenzoar, who had no children during the whole period of youth, but became a father shortly after recovering from a violent fever. And also the case, which came under his own observation, of an artificer, who lived twenty-four years with his wife without issue: shortly after his convalescence from illness, he became a father, and afterwards had many children.†

The diseases which we may rationally suppose will prevent cohabitation, are the following: A mutilation, or severe wounds of the sexual organs; carcinoma of the testicles or penis; gangrene of the lower extremities; immoderate evacuation of blood or bile, or of the fæces; scorbutic cachexia; marasmus; peripneumony and hydrothorax; anasarca in its perfect state, particularly if accompanied with an infiltration into the sexual organs; nervous and malignant fevers, particularly if they affect the brain, and are accompanied with great debility and

* Zacchias, *Quest. Med. Leg. Consilium*, 23.

† Zacchias, *vol. i. p. 271.*

loss of memory ; all affections of the head and spinal marrow, whether from a fall, blow, wound, or poison ;* or from internal causes, as apoplexy, palsy, or other comatose diseases. If the infant is conceived while the husband has been known to have labored under either of these maladies, the presumption is certainly against its legitimacy. So also, if he be affected with leprosy, venereal ozæna, severe cutaneous diseases, or insanity, we may reasonably doubt the fact of cohabitation, from the fear that we may suppose the female has experienced, lest she should be contaminated, or from the dread that she has entertained of having communication with the individual.†

We come now to the consideration of impotence in the female. And here it is to be observed, that even if the causes of it be removed, yet sterility, or an inability to conceive, may still exist. It will, therefore, be proper to notice the causes of impotence and sterility in succession. They may each be divided into incurable and curable.

The incurable causes of impotence are—1. An obliteration or thickening of the sexual organs, so as to prevent any introduction.

The vagina and womb have thus been found closed with a dense fleshy substance. Morgagni mentions cases in which there was a continuity of parts, without any aperture. A recent case related by Dr. Mott, as occurring in this country, deserves to be stated in detail. The individual was aged twenty-three, and had been married upwards of two years. Her health was extremely good, but she had not seen the

* Foderé mentions the case of a person, aged 40, who labored under temporary impotence during the space of six months, from exposure to charcoal vapors. This state of the system was left after the recovery from the immediate danger. (Vol. i. p. 382.)

† I have not noticed the *moral* causes of impotence, which involve the inquiry as to the *influence of the mind on the generative function*, because I can hardly suppose how any proof on this point can be brought before a court of justice. It is, however, unquestionable, that they may exist, through the influence of the imagination, the fear of incompetency, dislike of the individual, etc. The “Evil Eye” of the Greeks is an apt illustration.

least indication of the menses. About every twenty-eight days, she felt some slight uneasiness about the pelvis, followed for a day or two by an active diarrhœa. This occurrence she had noticed, since about the age of seventeen or eighteen.

As no connection could be effected by her husband, she at length consented to an examination. The external parts were fully formed, but no vagina could be discovered. On a plane with the meatus urinarius, or about the situation of the hymen, there is a complete septum or partition. It has a firm appearance, though it yields somewhat to the finger. There is not the least opening into it in any part. Imagining that it might possibly be an imperforated hymen, Dr. Mott made an incision into it about an inch in depth—but without success. After this closed, he made a second attempt, until he had proceeded between two and three inches. No marks of a vagina could however be discovered. Dr. Mott is of opinion that both vagina and uterus are wanting. She has never experienced the least sexual desire.*

* New York Med. and Phys. Journal, vol. ii. p. 19. A case probably of the same nature, is mentioned in the Lond. Med. Repository, vol. viii. p. 347.

Other cases are referred to in Davis' Obstetric Medicine, p. 112. "Richerand mentions a similar case, in which nature was periodically relieved by a discharge of bloody urine." (DUNLOP.)

Dr. Lee (Cyclop. Pract. Med., art. *Diseases of the Ovaria*,) states the following as communicated to him by Prof. Elliotson: A young married female had never menstruated, yet had violent pains every month. Connection went on, yet with severe pain. On examination, which was finally consented to, no vagina could be discovered, "the part, on opening the labia, being as flat as the palm of my hand." Mr. Cline attempted twice to remove the difficulty by an operation within the labia, but without success. It is justly supposed that the uterus was here wanting, but from the appearance of the breasts and other circumstances, that the ovaria had been fully developed.

Such was actually found to be the case in an instance of *imperforate* vagina, (as it is called, but where that organ was found closed by a thick muscular-looking substance,) operated on by Dr. Macfarlane, of Glasgow. The patient died, and on dissection no uterus was found, but the ovaries were large and well formed. In this female the breasts were fully developed. (*Medico-Chirurgical Review*, vol. xxii. p. 450.)

Dr. Watson, of New York, operated on a young German woman for con-

Foderé also relates the following case from the *Causes Célèbres*: In 1722, a young woman, aged twenty-five, in good health, was married at Paris. Six years elapsed without consummating the nuptials; at the end of which she consented to be visited by a midwife. This person declared that she could find none of the sexual organs, and that their place was occupied by a solid body. The female stated at this time, that though in good health, she had never been subject to the menses. A surgeon named Dejours was afterwards called in; and, on examination, he supposed that an incision into this solid mass might remedy the inconvenience; and he accordingly performed it in 1734, but without success; as, after cutting down two inches, he still found the mass in equal quantity, and the hope of its being a superficial obstruction was destroyed. He contented himself with keeping the wound open, and an aperture was thus preserved. In the year 1742, the husband applied to the court to annul the marriage. Levret and Saumet, on being consulted, stated that they had found an aperture of two or three inches in length; that the cicatrix of the former operation still remained; and that either through fear, or the prudence of the surgeon, it had not been sufficiently extensive to remove the obstacles. Ferrin, Petit, and Morand, on the other hand, deposed that the operation had been properly performed, and that it was not probable that the parts necessary for generation had ever been present, either before or after marriage. The court, however, refused to annul the connection, from an idea that a cure was practicable. The female died at Lyons about ten years after; and on dissection, the vagina and uterus were found to constitute one solid mass, without any cavity in either.*

genital occlusion of the vagina. A passage was obtained as far as the os tinæ, but the whole uterus appears to be atrophied. There was no menstrual fluid. (*Ferry's New York Journal of Medicine*, vol. iii. p. 338.)

* Foderé, vol. i. p. 385. Still more remarkable cases are on record. In the article *Cas rares*, in the *Dictionnaire des Sciences Medicales*, vol. iv. p. 166, it is asserted, on the authority of Hufeland, that the body of a child three years old was lately opened at Berlin, in which there was not the

In other cases, the vagina is entirely wanting, and yet on dissection, or by operations during life, the uterus is found present. Thus, in one by M. Villaume, the hymen was present, but there was merely a mass of cellular tissue in the place of the vagina, and by an operation an opening was made to the uterus.* In another, by Dr. Moulon, of Trieste, there was no exterior trace of the external organs, but on dissection, the uterus, with its appendages, were seen of their natural size and well formed.† Professor Warren, of Boston, recently operated in a case where the vagina was wanting, although the aperture of the urethra was well formed, and the clitoris and nymphæ appeared as usual. The female was twenty-three years old. The breasts were natural. No uterus could be discovered on examination. The operation ended favorably, a sanguineous discharge resembling the catamenia occurred, and Dr. Hayward supposed that he could distinguish something like an uterus.‡

slightest trace, either externally or internally, of any part of the genital organs peculiar to either sex. (Medico-Chirurgical Review, vol. iv. p. 300.) Another, resembling the above, and occurring in a girl fourteen years old, is quoted from the Journal de Médecine, in the American Journal of the Medical Sciences, vol. ii. p. 412. This individual enjoys good health.

* Littel's Monthly Journal of Foreign Medicine, vol. i. p. 376, from Archives Générales.

† American Journal of the Medical Sciences, vol. ii. p. 193, from Journal de Progres. Sometimes the vagina is found ending in a *cul-de-sac*, as in case of Agatha Mélassene, who died, aged 27, at the Hôtel-Dieu, in 1823. The external organs were well formed, and the breasts full; yet, on dissection, no uterus could be found, but the broad ligaments were present, containing in their folds the Fallopian tubes and well-developed ovaries. (Littel's Journal of Foreign Medicine, vol. i. p. 114.) A small orifice leading to the bladder, unaccompanied with a vagina, occurred at Mr. Syme's Edinburgh Surgical Hospital. (Edinburgh Med. and Surg. Journal, vol. xxxvii. p. 337.)

‡ American Journal of the Medical Sciences, vol. xiii. p. 79. A similar case is related by Mr. Edwards, in the Edinburgh Medical and Surgical Journal, vol. xli. p. 403. The editor, in commenting on this, remarks that cases of congenital deficiency of the vagina are very rare, and quotes three, from Meyer, Oberteuffer, and Howship.

Another instance occurring to M. Manoury, of Chartres, France, is mentioned in Medico-Chirurgical Review, vol. xxxvi. p. 531.

2. Another cause, (as assigned by systematic writers,) both of impotence and sterility, is a natural or fistulous communication of the vagina with the bladder or rectum. Foderé mentions cases of this nature, where the female menstruated by the rectum, and every possible remedy failed of success. There are, however, exceptions to this; since we have accounts of impregnation in one or two instances, and where delivery was effected by the malformed passages. Louis' famous case was of this description. The thesis that he wrote on this subject—"In uxore sic disposita, uti fas sit, vel non? judicent theologi morales"—was made the subject of a prosecution by the Parliament of Paris, and the Doctors of the Sorbonne interdicted him from addressing the casuists. The Pope, however, allowed him to publish it in 1754.*

3. A prolapsus or retroversion of the uterus, or a prolapsus of the vagina. These are of course curable during their first stages; but instances have occurred where they are of long standing, and cannot be reduced, since the introduction of the fingers causes the most vivid pain.†

4. A cancer of the vagina or uterus, from the pain that accompanies it, may be considered as an absolute cause.‡ Without this, however, it would not seem to be incompatible with impregnation. Dr. Beatty, of Dublin, had a pregnant

* *Medico-Chirurgical Review*, vol. v. p. 229. A late case of the same nature occurred to Prof. Rossi, in Piedmont. (*Dictionnaire des Sciences Medicales*, vol. xxiv. art. *Impuissance*.) Two other cases are related by Davis, (*Obstetric Medicine*, p. 121,) on the authority of Puzos and Portal.

† Pregnancy is, however, possible, even with an external prolapsus of the uterus. See cases quoted in the *Cyclopedia of Practical Medicine*, vol. iii. p. 493.

Mr. Guillemot has collected "from various sources, nine cases of the kind, the first two of which are particularly remarkable, as examples of gestation accomplished where the prolapse was complete." (*Montgomery, Signs of Pregnancy*, p. 194.)

"There is more than one case on record, where impregnation was effected, although the prolapse was irreducible." (*Churchill on Diseases of Females*, p. 216.)

‡ In the *New England Journal*, vol. ix. p. 161, is a case, by M. Lassere, which evidently proves the position in the text.

female laboring under the disease; and Dr. F. H. Ramsbotham observes in his Lectures, that in one case at least, which he attended, he had an opportunity of knowing that the disease existed before impregnation.* Dr. Waller relates an instance where the female was safely delivered, but died in six weeks after.†

Dr. Lever, also, in his work on Organic Diseases of the Uterus, mentions six additional cases, and has enumerated many other organic affections of that organ, which are shown not to be incompatible with pregnancy.‡

5. Extreme brevity of the vagina (congenital) would seem to be occasionally an incurable cause, so far as relates to the pain caused by connection, although possibly it may not be accompanied with sterility. Dr. Gooch says that he once met with a case of this kind, and relates that Dr. Hunter was consulted by a lady in a mask, laboring under this. He told her that she was the most unfortunate partner that a man could have, as there was no cure.§ Dr. Dewees appears to have met with two cases—in one, the whole distance to which the finger could be passed did not exceed one inch or an inch and a half; in the other it was apparently connected with an absence of the uterus, as the vagina terminated in a cul-de-sac. This female had never menstruated; yet she had all the marks of womanhood, and enjoyed sexual intercourse.||

The curable causes are—1. A dense substance covering the orifice of the vagina. Paré, Ruysch, Fabricius, and many others relate cases of this kind; in some of which the membrane, which is generally the hymen, was so strong that the menstrual blood was accumulated behind it in large quantities. Foderé quotes a case from Fabricius, where the husband de-

* London Med. Gazette, vol. xvi. p. 466.

† Lancet, N. S., vol. xxv. p. 835.

‡ See, in addition to Dr. Lever's work, the following: Mr. Sherwin, London Med. Gazette, vol. xxxiii. p. 806; two cases of fungoid disease of uterus complicated with pregnancy. Edinburgh Med. and Surg. Journal, vol. lxi. p. 161.

§ Gooch's Midwifery, p. 45.

|| Dewees on the Diseases of Females.

manded a dissolution of the marriage, from the impossibility of having perfect connection. The female, however, declared herself pregnant; and by an incision into the membrane, the obstacle was removed, and the pregnancy completed at the time indicated.* Dr. Physick is also stated to have operated with success in a case where the vagina was entirely closed up to a considerable distance within the os externum.†

2. An extreme narrowness of the vagina. Should pregnancy intervene, no apprehension need be entertained of the result in this case, as it has been repeatedly observed that a dilatation gradually takes place before the period of delivery. It may be remarked, however, that this occurs more readily in young females than in those of advanced years.‡

* Foderé, vol. i. p. 389. I shall notice this more in detail in the chapter on Rape.

† Dorsey's Surgery, vol. ii. p. 368. A remarkable case of a married woman, in whom the fossa magna were closed up to the orifice of the uterus, is quoted from Fletcher's Medico-Chirurgical Notes and Illustrations. She was relieved by an operation. A passage had, however, previously been effected into the bladder by the urethra, which was greatly enlarged. (*Lancet*, N. S., vol. viii. p. 613.)

Dr. Coste, of Marseilles, gives a case where the imperforate vagina was covered with an integument. The clitoris was greatly enlarged. The mal-conformation was removed by an operation. (*Medico-Chirurgical Review*, vol. xxix. p. 526.) A still more remarkable case is quoted by Dr. Churchill, (*Diseases of Females*, p. 48,) from Amusat. No vagina could be discovered, but a large and fluctuating tumor at the upper part of the pelvis was felt through the rectum. As an operation was deemed impossible, on account of the danger of wounding the bladder or rectum, Amusat proposed to separate the contiguous organs by traction, and actually succeeded. With his fingers he depressed the mucous membrane of the vulva until it yielded, and gradually, with the aid of a sound and a sponge tent, reached the tumor. This he opened with a bistoury, and a large quantity of dark, jelly-like fluid was discharged. The patient, aged 15, after this, menstruated regularly, and her health became perfectly established.

Another case of complete imperforation of the vagina, cured by an operation, and succeeded by regular menstruation, is stated by Dr. Kennedy in *Ferry's New York Journal of Medicine*, vol. i. p. 207.

‡ Dr. Davis mentions a case in which the narrowness returned after the first delivery, and was only completely relieved after the second birth. *Obstetric Medicine*, p. 102. See also the subsequent pages of his work for additional cases. M. Amusat lately removed a congenital occlusion of the

Sometimes, however, there is a degree of irritability combined with the narrowness, as to cause extreme pain and fainting, on attempting coition. Dr. A. T. Thomson mentions an instance of this nature, where he and Sir Charles M. Clark, in consultation, attempted every means to allay it and dilate, but without success.

3. Independent of the natural narrowness just mentioned, there is a similar affection that occasionally originates from accidental causes;* such as tumors and callosities, cicatrices

vagina, in a female fifteen years of age, and brought from Germany, by gradual dilatation with a blunt instrument. There was nothing now to prevent conception, but from the state of the parts, he considered the danger imminent, should gestation occur. (*Medico-Chirurgical Review*, vol. xxix. p. 522.)

* These are so numerous and various, that I will only refer to some of the more remarkable:—

Davis' *Obstetric Medicine*, p. 116 to 120.

On obliteration of the vagina, by Cæsar Hawkins. (*London Med. Gaz.*)

Cyclopedia of Practical Medicine, vol. ii. p. 601, art. *Impotence*, by Dr. Beatty.

Appendix to Dr. Hamilton's *Practical Observations on Midwifery*, part 2. Merriman's *Synopsis*, Appendix No. 11.

Of American cases, Dr. Williams, in *American Journal Med. Sciences*, vol. xi. p. 408; Dr. Hoillemin, *ibid.*, vol. xv. p. 407; Dr. Mussey, vol. xxi. p. 383. A case by Dr. Barret, of Kentucky, where death followed from rupture of the uterus in a second delivery, having been maltreated in the first. On examination, there was found a complete adhesion of the vagina, leaving only a septum of one or two lines at the lowest part. Through this, impregnation must have been effected. (*Drake's Western Medical and Physical Journal*, vol. iii. p. 206.) Two cases, caused by ulceration, by Dr. Carroll, of Ohio, *ibid.*, vol. xi. p. 546. A case by Dr. Hicks, of Mississippi, *American Med. Intelligencer*, vol. ii. p. 35. A case by Dr. Pugh, (from *Maryland Med. and Surg. Journal*,) in *Medico-Chirurgical Review*, vol. xl. p. 573. A case by Prof. McNaughton, in the *New York Medical and Physical Journal*, vol. vi. p. 252.

Dr. Fish, in *Boston Med. and Surg. Journal*, vol. xv. p. 268.

A case related by Dr. White, of St. Louis. Here (in 1833) a high state of inflammation of the mucous membrane of the vagina, and adhesion of its parietes were induced by a steam doctor, who injected, by *mistake*, some seven or eight times, an infusion of red pepper into the *vagina*, instead of the *rectum*. This heroic remedy was used to prevent an attack of cholera. Dr. White was obliged to make an extensive incision. (*Baltimore Med. and Surg. Journal*, vol. ii. p. 314.)

remaining after the cure of ulcers, or from lacerations after difficult labor. A dilatation of these may be made according to the rules of modern surgery.*

Dr. Meigs, in his work on Midwifery, relates a case which occurred from inflammation and sloughing after labor, and which was successfully treated.

Dr. Trowbridge, in *Boston Med. and Surg. Journal*, vol. xxii. p. 120.

Dr. Marsh, of Philadelphia, in *Philadelphia Med. Examiner*, vol. v. p. 1; Dr. Green, in *ibid.*, p. 68; Dr. Davezac, (from *New Orleans Med. Journal*,) in *ibid.*, vol. viii. p. 255. This was in a pregnant female, and an operation was necessary to divide the obstruction, which was elastic, but so completely closed the vagina, that the menses had passed merely through a small perforation.

A case by Dr. Stedman, in the *Edinburgh Med. and Surg. Journal*, vol. xxxvii. p. 26; by Dr. Turnbull, in *ibid.*, vol. xxxix. p. 128; by Mr. Ingleby, in *ibid.*, vol. xlv. p. 111.

Dr. Boehm, quoted in *London and Edinburgh Monthly Med. Journal*, vol. iii. p. 478; Mr. Square, in *Provincial Med. Journal*, *Medical Times*, vol. x. p. 378, *Artesia Vaginæ*.

In the *Medico-Chirurgical Transactions*, vol. xi. p. 445, a case is related of a negress in Jamaica, in whom there was a complete adhesion of the labia; and she asserted that it was owing to an operation performed in Africa, for the purpose of preserving the chastity of the female. This appears indeed to have been an ancient custom, as it is mentioned by Strabo. That it is the practice, is proved by the observations of Burckhardt, who says that the daughters of the Arabs, Ababde and Djaafeere, who are of Arabian origin, and who inhabit the western banks of the Nile from Thebes as high as the cataracts, and generally those of all the people to the south of Kenne and Esne, as far as Sennaar, undergo excision of the clitoris at the age of from three to six years. The healing of the wound is contrived to close the parts, except at one place for the passage of the urine and menses; and the adhesions are not broken through until the day before marriage, and in the presence of the intended bridegroom. Some have the parts sown up, and, like eunuchs, become more valuable on account of their unfitness for sexual connection. (*Elliotson's Blumenbach*, p. 456; see also *Browne and Legh's Travels*.)

Vagina closed with a dense cicatrix, with the exception of a canal through which a small quill might be forced. Third pregnancy, the female died from rupture of the uterus, undelivered. (*Dr. Brainard, Illinois Med. and Surg. Journal*, vol. i. p. 25.)

* Dupuytren, in his essay on Laceration of the Perinæum during Labor, mentions two cases, which I extract, for the purpose of caution to the medical jurist. He delivered a young woman secretly. The perinæum was ruptured, but, by the use of the suture, it again united. Several years afterwards, a man and a woman visited him. The husband was unable to

4. We may add long-continued hemorrhage, recent prolapsus of the uterus or vagina, and even protracted fluor albus, to the above. They prevent connection from the pain that occurs, or the diseased state that is present.

5. Mr. Ingleby suggests an additional cause in a protrusion of the bladder into the vagina. He has met with one case of this description, where this impediment arose several years after marriage.*

The causes of sterility of an incurable nature, and sensible to the sight or touch during life, may be stated thus: A scirrhus or cartilaginous uterus; stricture in the cavity of that organ;† a polypus in the interior of the uterus; enlarged and scirrhus ovaria.

The want of the uterus, should that occur, is seldom positively known till after death.‡

consummate his marriage. On examination, the aperture of the vagina was found very narrow, and a cicatrix was on the perinæum. It was his old patient. He advised patience; and in a short time the female became pregnant, and was safely delivered. In a parallel case, the husband deemed it a most unequivocal proof of previous purity. (*London Medical Gazette*, vol. xi. p. 128.)

* Edin. Med. and Surg. Journal, vol. xlv. p. 432.

† Baillie's Morbid Anatomy, p. 371. "Slight inflammation," he observes, "may induce this, and the obliteration particularly occurs in that part where the cavity is narrowest."

‡ Memoirs of the Medical Society of London, vol. iv. p. 94. See also Burns' Midwifery, chapter iv. note 47, for references; Morgagni, letter 46; and Cooke's edition of the same, vol. ii. p. 450. A case by Dr. Stein, of Berlin, illustrates the variety of external conformation that occurs. She was married, aged 24, well formed, slender, and delicate, with full breasts. The vagina was imperforate, and on operating, nothing but a mass of cellular tissue could be found. She had never menstruated. Dr. Stein supposes, with probability, that the uterus is wanting, and infers that it is the *ovaria* and not the *uterus*, which, by their influence, give to the female her characteristics. (*Annals of Philosophy*, vol. xvi. p. 114.) This last opinion is corroborated by known facts, such as the case of Mr. Pears, in the Philos. Trans. for 1805. The woman died at the age of twenty-nine. Her stature about four feet six inches, having ceased to grow at ten years of age. She never menstruated; her breasts and nipples never enlarged more than in the male subject; there was no appearance of hair on the pubes, and she never showed any passion for the male sex. On dissection, the *os tincæ*

The causes which may be curable are: obliquity in the position of the uterus; too great irritability of that organ; ex-

and uterus were found of the usual form, but they had never increased beyond their size in the infant state; the passage into the uterus through the cervix. was oblique; the cavity of the uterus of the common shape, and the Fallopian tubes were pervious to the fimbriæ; the coats of the uterus were membranous; *and the ovaria were so indistinct as rather to show the rudiments which ought to have formed them, than any part of their natural structure.* (Edin. Med. and Surg. Journal, vol. iii. p. 105.) Mr. Pott removed the ovaria in a case of inguinal hernia, by a surgical operation. (Works, vol. ii. p. 210.) Before this period, the female (aged twenty-three) was stout, large-breasted, and menstruated regularly: afterwards, although she enjoyed good health, she became thinner, her breasts were gone, and she never menstruated.

Additional cases of the absence or imperfect state of the uterus or ovaria, and sometimes also of the vagina, may be found in the London Med. Repository, vol. xxvi. p. 78, by Dr. Renauldin; Lancet, N. S., vol. x. p. 624, by Dr. Macfarlane; Davis' Obstetric Medicine, p. 513; Andral's Pathological Anatomy, vol. ii. p. 414; Gooch's Midwifery, p. 8. By Dr. Albers, (from Kleinert's Repertorium, September, 1835;) this case was examined after death, which occurred at the age of 47. (Lancet, N. S., vol. xvii. p. 570.) A case of a female, aged 19, in the Birmingham Infirmary, August, 1835. The uterus was wanting, and there was no trace of a vagina, but the ovaries were of the natural size, and the breasts were small, but decidedly formed. (Transactions Provincial Med. and Surg. Association, vol. iii. p. 399.)

American Journal Med. Sciences, vol. xx. p. 393, case by Dr. J. B. S. Jackson, of a female examined at Boston; the external organs and breasts were fully developed, but the vagina and uterus were wanting; the Fallopian tubes and ovaries were natural. Ibid., vol. xxvi. p. 38, by Dr. Chew, of Baltimore; the female living; p. 185, by Dr. Burggrave, of Ghent, post-mortem examination.

American Journal of Medical Sciences, N. S., vol. i. p. 348, by Dr. Bennet, of New Jersey; in this, an operation proved useless, as the parts closed again; p. 493, by Dr. Seguin, from Revue Medicale; p. 494, by Dr. O'Bryan, from the Dublin Journal; vol. iii. p. 199, by Dr. Bertani, of Milan; in this, both vagina and uterus were wanting; she (Caroline Fossati) had never menstruated; vol. vii. p. 489, by Dr. Mondini, from an Italian journal. This female had never menstruated, but every month there was bleeding from the nose. She died of fever, and, on dissection, the ovaries were natural, but there was no uterus or vagina.

Medico-Chirurgical Review, vol. xxxv. p. 547, case by Rayer at the Hôpital de la Charité.

New York Journal of Medicine and Surgery, vol. iii. p. 435, by Dr. Isaac E. Taylor.

Medico-Chirurgical Transactions, vol. xxiv. p. 187, by Dr. R. Boyd.

British and Foreign Medical Review, vol. xii. p. 540, by Dr. Wehr, of Cas-

cessive menstruation; leucorrhœa; retention of the menses.* This last, however, is not by any means a certain cause of sterility, as women have become pregnant without the menses ever occurring.†

We should readily suppose that an imperforate uterus must be productive of sterility, were not an opposite case related on the highest authority. A female in London, in labor with her first child, (November, 1836,) was found by Mr. Tweedie, the reporter, and Dr. Ashwell, to have no orifice into the uterus, nor was delivery accomplished until after an operation.‡ In this, and similar cases, it is supposed that the orifice of the

sel; vol. xiii. p. 230, by Dr. Cramer. Here the vagina was well formed, but ending in a cul-de-sac, with vicarious menstruation and sexual appetite.

* Mr. Serrurier, of Paris, has published a case of obliquity of the os uteri in a sterile female, which was accidentally removed by a fall from a horse. Conception subsequently occurred. He also mentions extreme softness or induration of the neck, as occasionally curable causes. (*Amer. Journal Med. Sciences*, vol. xxii. p. 472.)

Foderé and Mahon mention dropsy (hydatids) and tympany of the womb as causes. Denman, however, observes that, according to his experience, they have not prevented conception. (*Denman*, pp. 148 and 149.)

† I have already referred to Dr. Duncan's Essay, and will only add, that it contains a notice of malconformation in the genital organs of both sexes, as connected with deficiency of the urinary bladder. Copious references are given to all preceding cases on record. See *Edin. Med. and Surg. Journal*, vol. i. p. 132. Additional cases of female malconformation are also contained in *Edin. Med. and Surg. Journal*, vol. i. p. 39, by Mr. Coates; vol. i. p. 128, by Astley Cooper, Esq.; and vol. vii. p. 23, by Mr. Conquest; in *London Med. Gazette*, vol. x. p. 8, by Mr. Earle. This last writer observes, that there are but seven or eight recorded cases of such malconformations in the female, while there are at least sixty related of its occurrence in the male. It is not incompatible with impregnation. See the case of the Cornish woman, by Dr. Huxham, *Phil. Trans.*, vol. xxxii. p. 408; also, vol. xx. p. 56; and Mr. Earle's Clinical Lecture on this subject, as above. A very curious American case, where the Cæsarean operation was successfully performed, and the parts generally resembled the cases above enumerated, is related by Dr. Hamilton, of Enfield, Connecticut, in *Boston Med. and Surg. Journal*, vol. xi. p. 93.

‡ *Guy's Hospital Reports*, vol. ii. p. 258. See also *London Med. Gazette*, vol. xx. pp. 392, 585. Dr. Tweedie delivered this female a second time, after an operation. He considers it ascertained, that in her the cervix uteri was wanting, and consequently that, after impregnation, adhesive matter,

uterus being exceedingly minute, may be obliterated by slight local inflammation after conception.

In concluding this subject, it is proper to add that there are many cases of constitutional sterility which we cannot explain. Ashwell, in his treatise on Parturition, ascribes it to four principal causes: too early marriage, general ill health, too frequent sexual intercourse, and dysmenorrhœa.* It is obvious, however, that these are far from being invariable, yet the frequency of barrenness among prostitutes has led to some examinations, and afforded us several interesting facts. Some have referred it to a state of exhaustion of the uterine system, produced by excessive excitement, and in illustration, it is as-

instead of mucus, may have closed up the small opening in the uterus which doubtless existed. (*Guy's Hospital Reports*, vol. iv. p. 117.)

A number of cases of occlusion of the uterus are referred to by him and Dr. Ashwell, in *ibid.*, pp. 120, 126.

Dr. Webber, of New Hampshire, relates a similar instance of obliteration of the os uteri. A slight scratching with the finger, aided by the effect of labor-pains, was, however, sufficient to produce a successful dilatation. (*Amer. Journal Med. Sciences*, vol. xxiv. p. 256. See also Crosse's Address, in *Transactions Provincial Medical Association*, vol. v. p. 94, *British and Foreign Med. Rev.*, vol. viii. p. 55, vol. ix. p. 263.)

Probably Congenital.—A case successfully operated on, in an unmarried female, by Professor Delpech, is given in the *Medico-Chirurgical Review*, vol. xvii. p. 553. Another, by Prof. Wattman, from *Gazette Medicale*, in *London and Edinburgh Monthly Journal Medical Science*, vol. ii. p. 204.

In the *Amer. Journal Med. Sciences*, vol. xxii. p. 172, a case is quoted from a German journal, in which impregnation occurred, while the uterine orifice was completely filled by a polypus.

Nægele, the son, has written an essay on this subject, (*De Mogostocia è conglutinatione orificii uteri externi Commentatio*, Heidelberg, 1833,) which is analyzed in the *Archives de la Médecine Belge*, vol. iv. p. 124. He ascribes the occlusion to inflammation induced by various irritant causes. A case, apparently congenital, and relieved by an operation, is mentioned in *ibid.*, vol. viii. p. 236, by Dr. Becausseau, of Liege.

* Review of his work in *Amer. Journal Med. Sciences*, vol. iv. p. 149. Sterility is considered by the laws of various countries a legal ground of separation. It is so among the Hindoos. By the laws of China, barrenness and talkativeness are two among the seven causes of divorce. The Koran also permits it. By the English and Scots law, sterility is a ground for divorce, *a mensa et toro*. (*Edinburgh Encyclopedia*, art. *Barrenness*.)

sented that some of the most abandoned, on going to Botany Bay and marrying there, become the mothers of large families. An anatomical change would, however, seem to cause it in certain instances. Thus Mr. Langstaff, in several dissections, found the fimbriated extremities of the Fallopian tubes on one or both sides, adherent to some of the neighboring parts, and it is evident that the constant state of inflammatory turgescence in the generative organs must lead to this.*

M. Donné has investigated this subject in another point of view. In a communication to the Royal Academy of Sciences at Paris, he states that he submitted the spermatic animacules to the action of various animal fluids. Blood, milk, and pus seemed to have no visible effect upon them, but the urine and saliva appeared to kill them at once. Under certain circumstances, the vaginal and uterine mucus, even of females apparently in good health, was such as instantly to destroy them.† If there be any foundation for these results, we can readily explain the cause of sterility in diseased females and in prostitutes.

From a review of the causes of impotence in both the sexes, it is evident that the absolute ones are few in number—that they are mostly palpable to the senses, and that the number formerly assigned to this class has been greatly reduced by the improvements in surgery. The medical witness must of course regulate his testimony by these facts.

I have already stated the English law on this subject, and will here add a few of the decisions made under its general provisions.

* Medico-Chirurgical Review, vol. iv. p. 405; Paris, Med. Jurisp., vol. i. p. 215. See also Dr. Elliotson's Clinical Lectures, in Lancet, N. S., vol. viii. p. 55; Eberle's Med. Review, vol. ii. p. 394; Medico-Chirurgical Transactions, vol. viii. p. 505, vol. xiii. p. 55.

It would appear from the observations of Parent-Duchatelet, (De la Prostitution, vol. i. p. 230,) that prostitutes are far from being *absolutely* sterile. According to him, about twenty-two in the thousand bring forth children, but these seldom survive. Abortions are also common. Prostitutes are hence evidently much less prolific than virtuous females.

† Medico-Chirurgical Review, vol. xxxii. p. 529. See Wayne's Physiology.

In the case of *Briggs v. Morgan*, the suit was brought sixteen months after marriage. The female had been a widow, and had lived eighteen years with a former husband. She was now fifty years old. Sir William Scott (Lord Stowell) denied the application. It was brought too late. The female, also, is beyond the ordinary time of child-bearing; and she further swore that she had constant connection with her first husband until near his death.*

In the case of *Greenstreet v. Cumyns*, the husband admitted the charge, and two physicians and two surgeons, duly appointed, testified that though the disease and imperfection of the parts were not such as to imply impotence, yet having heard his own history, they put faith in his account, and as he was in good health, they could hold out no hope of his weakness being remedied. The marriage was annulled on these grounds—the husband (Sir Wm. Scott observed) being in utter ignorance of his constitutional defects at the time of marriage.†

In *Norton v. Seton*, the husband instituted a suit for divorce after having been seven years married, on the ground of his own impotency and defect in his generative organs. It was with great justice denied by Sir John Nichol. “Here,” says he, “has been seven years’ cohabitation. *Cur tamdiu tacuit?*”‡

The doctrine that the impediment must have existed at the time of marriage and must be incurable, and that even if the last be proved, it must not have been a merely supervening defect, is decisively affirmed by Sir John Nichol in the case of *Brown v. Brown*.§

In *Pollard v. Wybourn*, it was proved by medical certificates that the female, twelve years after marriage, was *virgo intacta* and *apta viro*. The husband had made several confessions of his incapacity, and refused, being in France, to answer the complaint.

* 3 Phillimore's Ecclesiastical Reports, p. 425. † 2 Phillimore, p. 10.

‡ 3 Phillimore, p. 147. § 1 Haggard's Ecclesiastical Reports, p. 523.

The marriage was dissolved.*

In the case of *Harrison v. Harrison*, the wife deposed, that during a marriage of fifteen years, no connection had ever taken place; she further presented the following report, made by Sir Charles M. Clark, Dr. Locock, and Sir Benjamin Brodie:—

“The signs of virginity are in many instances inconclusive. In the present case, there are no positive proofs of connection having ever taken place, or the contrary, but there are decidedly no physical impediments to physical intercourse.”

The husband denied his impotence, but admitted the non-consummation, and urged as an excuse that the manner of his wife was extremely repulsive and frigid. No examination was had of his person.

The court dissolved the marriage.†

As the present is truly called a singular, and, indeed, is almost an unique one, I will present an analysis of it as given in *Robertson's Ecclesiastical Reports*, vol. i. p. 279.

The parties, whose names are concealed, were married on the 3d of February, 1842, the husband being aged about twenty-six years, and the wife twenty-five. The husband stated, in his application for a divorce, that they had lived together until the 11th of November, 1844, when she returned to her father's house; that the marriage had never been consummated, in consequence of a natural malconformation of the sexual organs; that he for some time was of opinion that the inability was the result of a temporary obstruction, which

* 1 Haggard, p. 725. It would seem that the canon law in England required three years' cohabitation before the party could be declared incapable. Such at least is asserted by Sir George Lee, (*Ecclesiastical Reports*, edited by Dr. Phillimore, vol. ii. p. 580,) in the case of *Welde v. Welde*. Here, the surgeon, as I have already stated, deposed to the removal of a natural phymosis, and he now believed the defendant capable. The wife was declared pure on the examination of midwives. Sir George Lee, however, refused to dissolve the marriage.

† *Curtis's Ecclesiastical Reports*, vol. iii. p. 16. This decision was subsequently affirmed by the Privy Council, (on confession of non-consummation and refusal to undergo inspection.)

would probably yield to simple exercise, aided by horse exercise, which he recommended to her, and in the use of which she long persisted; that, in the months of September and October, 1844, she, at his earnest entreaty, submitted to an examination by Drs. Bird and Lever, and upon their concurrent reports as to her natural and irremediable malconformation and bodily defects, he for the first disclosed to his legal advisers the non-consummation of the marriage, and now applied for a divorce.

The answer contained a general denial of the statement of the malconformation and non-consummation, and stated that, in the months above named, in 1844, she, by reason of not having any child, and not on account of any natural or irremediable conformation or bodily defects, submitted, at her husband's earnest request, to medical examination.

On the 5th of April, 1845, Dr. Bird, Dr. Cape, and Dr. Lever were appointed by the court inspectors to examine the female. Their report is as follows:—

"April 5, 1845. We, the undersigned, have this day particularly examined the parts of generation of Maria D., and we are unanimously of opinion that she is undoubtedly capable of performing the act of generation, and of being carnally known by man. We are further of opinion that, although sexual intercourse can occur, yet conception cannot result." Signed as above.

This report leaves the matter rather mysterious, even to a medical man, and it is therefore necessary to state the evidence of Dr. Bird and Dr. Lever.

It seems the former was consulted by the defendant for about a year past, for certain ailments, and in pursuing his inquiries respecting her indisposition, he found it absolutely necessary to make an examination, and the result was, that he ascertained that the external sexual organs were imperfect, or rather undeveloped; that she had the appearance rather of a girl not having attained puberty, than an adult; and internally, the vagina, which ought to have been of an internal

depth of about three inches, was in fact, as ascertained by admeasurement, only three-quarters of an inch in depth. "This was decidedly a natural malformation of the parts, but not such as I was enabled, without further investigation, to pronounce whether remediable or irremediable, though it was certain that if the former, it could only be effected by an operation. With the view of endeavoring to ascertain if an operation could be performed with a prospect of success, a more minute and careful investigation became necessary, and such was subsequently made by myself in conjunction with Dr. Lever, and it was then ascertained that the internal structure of the organs of generation was, in addition to the deformity already mentioned, further importantly deficient and imperfect, there not being any uterus. This was ascertained by me beyond the slightest possibility of a doubt, and that the vagina formed an impervious *cul-de-sac*, and that, consequently, any operation would be wholly ineffective; and I depose that the said Maria D. is, therefore, irremediably incapable of procreation and conception, arising entirely from the organic deformities which I have explained, viz., the absence of the uterus, and the irremediably impervious state of the vagina."

Dr. Bird further deposed that on the examination made April 5th, 1845, with Drs. Lever and Cape, he had found that the vagina had become considerably elongated, being now of the depth of two inches, ascertained by actual admeasurement. "I cannot, therefore, depose that it is absolutely impossible for the vagina to attain a further elongation, but I am not acquainted with any means, medical or otherwise, capable of improving its existing condition." He further stated as his opinion, that the deformity did not entirely prevent her from having connection, as it had undoubtedly taken place, but such connection must be of an imperfect character, and allowing only a partial insertion of the penis. The husband had communicated to him the imperfect connection he had had, and with great alleged suffering from pain on her part, but that he had attributed it at first, and for a long time, to a

mere temporary obstruction capable of being overcome by further intercourse.

The testimony of Dr. Lever coincides in all the main points with that of Dr. Bird. He states, however, that the female admitted to him the total absence of the menses. As to the partial extension of the vagina, he was unable to say whether it had been caused by sexual intercourse or by artificial means.

On this testimony the case came to trial. For the husband it was urged, that this is not the case of a woman who is barren; that undoubtedly would be no ground for a sentence of nullity—but of one who has no uterus, and in addition to that defect, has her vagina so formed as to preclude sexual intercourse in the proper sense of the term. If a woman be “*mulier viro inutilis*,” or, as it is otherwise expressed, “*inhabilis*,” arising from a natural irremediable defect, which is the case here, there is just ground for a sentence of nullity.

The counsel for the wife insisted that to entitle a party to a sentence of nullity, there must be an *utter impossibility* of sexual intercourse. This is not proved by the plea. The case is one of mere sterility, which is no ground for a sentence. Besides, there has been an improvement in the elongation of the vagina, and they will not undertake to depose that there may not be a further elongation. To justify the sentence prayed, the defect must be permanent and irremediable. Again, actual consummation has taken place.

The judge (Dr. Lushington) took time to consider the case, and on the 7th of June pronounced judgment.

The inspectors' report, if considered by itself, is clearly insufficient to justify a decree in favor of the husband. It declares the power of consummation, but denies the power of conception. But two of them have been examined, and it is necessary to consider their evidence. Mere incapability of conception is not a sufficient ground whereon to found a decree of nullity. “The only question is, whether the lady is or is not capable of sexual intercourse, or if at present incapable, whether that incapacity can be removed?”

The effect of Dr. Bird's testimony is, that there may be connection of a very *imperfect character*. He cannot say that it is impossible that the vagina should obtain a further elongation, but it must always remain in a deformed and unnatural state. The evidence of Dr. Lever does not materially differ from this.

Now the evidence and the report do not convey the same idea. The latter would induce a belief that the act of generation might take place in its ordinary and perfect form; the evidence speaks of its very imperfect character. The report is silent as to the possibility of cure.

"Certainly, all the circumstances combined, form a case of no ordinary difficulty. It is no easy matter to discover and define a safe principle to act upon; perhaps it is impossible affirmatively to lay down any principle, which, if carried to either extreme, might not be mischievous. Very little assistance can be obtained from authorities. I must rather endeavor to find out what are the true principles of law and reason applicable to the case, following as far as practicable, or rather not contradicting, former decisions." Sexual intercourse, present or to come, is necessary to constitute the marriage bond between young persons. And this intercourse must be ordinary and complete, not partial and imperfect; yet it would not be proper to say that every degree of imperfection would deprive it of its natural character. There must be degrees difficult to deal with; but if so imperfect as to be scarcely natural, I should not hesitate to say that, legally speaking, it is no intercourse at all.

The evidence of the witness is somewhat ambiguous. As to conception, there is no doubt that the malformation is incurable, but it is to me doubtful whether they mean that it is incurable as to the mere coitus. If there is a reasonable probability that the lady can be made capable of the natural sort of coitus, I cannot pronounce this marriage void; but if she is not, and cannot be made capable of more than an incipient, imperfect, and unnatural coitus, I would pronounce it void. Such an intercourse must cause disgust, lead to adulterous

connection, or else force the husband to a state of quasi unnatural connection.

The discrepancy between the report and the evidence is such as to prevent a decision until Dr. Cape is examined, and the following questions, in addition to the examination of the parties, are to be put to him:—

1. Whether (without regard to the impossibility of conception) the lady was, at the time of his examination, capable of the act of generation in its natural and ordinary meaning, or only of incipient and imperfect coition? .

2. Whether, if not capable of generation in its natural and ordinary meaning, but only of incipient and imperfect coition, such defect arises from malformation incapable of cure, so as to allow of the natural and perfect act of coition?

Dr. Cape, after mentioning his examination of the female in March, 1844, and his subsequent one in consultation with Drs. Bird and Lever, in April, says that during the latter he found the vagina increased in depth. It was precisely two inches; the natural depth would be from four inches to four inches and a half; and this state of things is decidedly a malformation of the sexual organs, positively irremediable; no operation could be performed to effect a cure; that she is capable of restricted and limited connection, and not of one in its natural and ordinary meaning: it cannot be called perfect, though it is beyond incipient coition. It is just possible that a further, but very slight improvement might take place by continual, frequent sexual intercourse, or by mechanical means. “I will not swear that the vagina is impossible to be further elongated, but I do swear that it could not be effected without endangering life, or running serious risk of doing so.”

July 8. The cause came before the court again, with the additional evidence of Dr. Cape, and after hearing counsel thereon, the judge pronounced the marriage null and void.

I find that I was mistaken in stating, as I did in a previous edition, that the English law was in force in this State. This

point was solemnly adjudicated by Chancellor Sanford in 1825, in the case of *Burtis v. Burtis*. Here the wife filed a bill against her husband, and stated that he was impotent, and had been so from his birth. She, therefore, asked for a dissolution of the marriage. The defendant demurred, on the ground that the complainant was not entitled to any relief, and that he ought not to be compelled to make any discovery. His counsel further urged, that impotence was a mere *canonical* cause of divorce, and that the English Chancery never claimed or exercised any jurisdiction on that subject; while, in our own State, jurisdiction was given by statute. On the other hand, the counsel insisted that the jurisdiction of the ecclesiastical courts of England, in granting divorces and annulling marriages, had devolved upon, and appertained to, the Court of Chancery in this State.

The chancellor, in his opinion, mentioned that New York, when a colony, was ruled for some years by governors, who, either alone or with the council, assumed executive and judicial powers. During that period, one of the governors, Lovelace, granted four divorces, one in 1670 and three in 1672.*

* For one of these I am indebted to the kindness of John V. N. Yates, Esq., late Secretary of State; and as it has never been published, I prefer giving the proceedings at full length, as copied from the records.

"Nicholas W——, of Oysterbay, on behalf of Rebekah his daughter, wife of Eleazer L——, of Huntington, made complaint unto me of the uncomfortable condition wherein his said daughter hath, for divers years past, lived with her said husband; and there having been formerly several complaints made, both on the part of the relations of the husband, as well as those of the wife, suggesting some notorious fault or impediment on the one side or the other, which hitherto hath not been fully or clearly made appear, so that mutual discords and differences do still continue. To the end a fair composure of the same may be effected, or some other lawful course taken therein, I have, by and with the advice and consent of my council, thought fit to ordain and appoint, and by these presents do ordain and appoint, that Eleazer L—— and Rebekah his wife do appear now in this city, upon Wednesday, the fourth of May next, before a special court appointed to examine into and determine the matter in difference between them; and all persons concerned, or that can give in evidence on either part, are hereby required to make their appearance before the said court, for the better clearing of the

These were the only cases that occurred, during and through the long period of more than one hundred years, down to the

truth, so that the controversy may be decided according to law and good conscience. Given under my hand, at Fort James, in New York, this first day of April, 1670.

“FRANCIS LOVELACE, Governor.”

Volume marked “Court of Assize, 1665 to 1672;” vol. ii. p. 139.

A Commission, etc.

“Whereas complaint hath been made unto me by Nicholas W——, on the behalf of Rebekah his daughter, against Eleazer L——, her husband, and also by the said Rebekah against him the said Eleazer, that having been joined in matrimony for the space of seven years and a half, or thereabouts, he, the said husband, hath not performed conjugal rights unto his wife, but on the contrary hath caused her to lead a very uncomfortable life with him; and the said father and daughter, upon supposition of impotency and insufficiency in the said Eleazer L——, having sued for a divorce, the hearing and examination into which matter I do not judge meet should come before a public court, I have therefore thought fit to nominate and appoint, and by these presents do hereby nominate and appoint Thomas Lovelace, Esq., Mr. Samuel Maverick, Mr. Matthias Nicolls, Capt. John Manning, and Mr. Humphrey Davenport, to be commissioners, to meet at some convenient place this afternoon, then and there to hear and examine into this matter in difference between the said Eleazer L—— and Rebekah his wife. To which end, you are to call both parties before you, or whosoever also can give evidence or testimony in the matter; to whom you may administer an oath, for the better clearing of the truth; which oath you are hereby empowered to give; as also to employ any other person or persons skillful in such matters, to make inquiry into the defect and impediments alleged; whereupon you are to give judgment, and render an account, that I may make some final determination thereupon. Given under my hand and seal, this sixth day of May, in the 22d year of his majesty’s reign, A.D. 1670.” (*Ibid.*, p. 175.)

A Divorce Granted to Rebekah W——, from Eleazer L——.

“Whereas Nicholas W——, of Oysterbay, on the behalf of his daughter Rebekah, the wife of Eleazer L——, and the said Rebekah for herself, did make their complaint unto me against the said Eleazer L——, her husband; that she having been his reputed wife for the space of seven years and a half, she hath not in all that time received any due benevolence from her said husband, according to the true intention of matrimony, the great end of which is not only to extinguish those fleshly desires and appetites incident to human nature, but likewise for the well ordering and confirmation of the right of meum and tuum, to be devolved upon the posterity lawfully begotten betwixt man and wife, according to the laws of the land, and prac-

revolution. Subsequent to that period, no provision on this subject had been made by the legislature.

"The law of England concerning divorces is, chiefly, the ecclesiastical law and not the common law of that country, and it has never been adopted in this State. Our statutes concerning divorces are original regulations, and they do not adopt or introduce the English law of divorces. We have no judicature authorized to adjudge, by a substantive and effectual sentence, that a marriage is illegal, and to separate the parties. This court cannot, therefore, dissolve a marriage or decree a divorce for the cause of corporeal impotence."*

In our Revised Statutes, however, passed in 1828, the omission, if it may be so styled, was rectified. The chancellor has now the power of declaring the marriage contract void for (among other causes) physical incompetency in either of the parties, existing at the time of marriage. It is further enacted, that a suit to annul a marriage, on this ground, shall only be maintained by the injured party against the party whose incapacity is alleged; and shall in all cases

tice of all Christian nations, in that case provided; and did therefore sue for a divorce. Whereupon, having appointed commissioners to call both parties before them, and strictly to examine into the affair, and to make report of their judgment thereupon; the which, after serious inquiry made by them, with the advice of chirurgeons well skilled, and sober matrons, who privily examined both the man and the woman, they made report of their judgment and opinion, that the defect was in the husband, and not in the wife, and there was a sufficient ground for a divorce. All which being afterwards represented to my council, and they having declared themselves in the same opinion: For the reasons afore specified, the pretended marriage between the said Eleazer L—— and Rebekah W—— is hereby adjudged and declared to be void, null, and invalid, together with all the consequences thereof; and the said Rebekah W—— is hereby acquitted, made free and divorced from all pretences of marriage, or matrimonial ties and obligations between her and the said Eleazer; and the said Rebekah hath likewise free liberty to dispose of herself in lawful marriage with any other person, as if the ties and obligations between her and the said Eleazer had never been. Given under my hand, and sealed with the seal of the province, this 22d day of October, in the 22d year of his majesty's reign, A.D. 1670." (*Ibid.*, p. 260.)

* Hopkins' Chancery Reports, vol. i. p. 557.

be brought within two years from the solemnization of the marriage.*

The late chancellor of this State (Walworth) has also decided that a sentence of nullity, on the ground of impotence, cannot be pronounced upon a bill of confession; but that the defendant must be examined on oath before the master, who must also take proof of the facts and circumstances stated in the complainant's bill. In the present case, which was that of a female, charged by her husband with impotence, he declared that the court would not decree the marriage void until a surgical examination had been had in order to ascertain whether the alleged incapacity is incurable. The master was directed to select surgeons and matrons for this purpose, and in the choice to have due regard to the feelings and wishes of the defendant.

At a subsequent period, this case again came up on the master's report. The medical examiner stated that the hymen was unusually firm, dense, and strong. It was not, however, imperforate. "I also infer," says the chancellor, "from what is stated, that there have been regular catamenial discharges, and the defendant appears to have had no suspicion that she was not like other women until some time after the marriage. The physician also who has been called by the complainant as a witness, does not even express a belief that the disability might not be cured by a proper surgical operation, although he says the result is 'doubtful.'"

Under these circumstances the chancellor refused the application for a divorce.†

* Revised Statutes, vol. ii. pp. 142, 143.

† *Ancient Trial for Impotence*.—There is, in the New York State Library, a curious book, entitled "*Processus Divorcii inter Joannem Gyb, in Strather, et Margaretam Hillok, A.D. 1563*," evidently a modern reprint, if indeed it be not printed from the MS. Its contents purport to be taken from the register of the Kirk session of the parish of St. Andrews, in Scotland. Margaret, his "spouse," accuses John of impotency, having been his bedded wife for upwards of two years. The superintendent ordered them to "coheir" and keep "company together, etc., for the space of three-quar-

In Pennsylvania, by an act passed March 13, 1815, it is enacted, "that if either party, at the time of the contract, was and still is naturally impotent, or incapable of procreation, it shall and may be lawful for the innocent and injured person to obtain a divorce."*

Impotence is made a cause of divorce by the laws of New Hampshire, Illinois, Indiana, Tennessee, and Missouri.† And the following case shows that the law is similar in Ohio.

In the case of *Keith v. Keith*, the wife plaintiff, and about twenty-eight years of age, had been married about a year and a half to the defendant, who was about thirty-five years old, of common size, but without beard, and with a fine feminine voice. They lived together about a year, when she left him, and went to her mother's, with whom she has since resided. Three respectable witnesses deposed that they had examined the defendant a few days previous to the sitting of the court, and that he was destitute of virile organs. "He had no testicle, only a little loose skin, as large as that containing the testicle of a squirrel. He had no penis. Between the place of one and the navel, there was a teat, about three-fourths of

ters of a year." At the end of that time, John denied his impotency, and confessed that he had camall "dayl" with another woman and also with his wife, "but nocht in lych manner as with the other female." Another order to cohabit within fifteen days, on pain of calling in the temporal power. Finally, a trial was held. Gyb confessed his utter impotency as to his wife, but testified that since the present suit, he had repeatedly had intercourse with a servant-woman of his mother, and this female testified to the same. She was urged thereto by the mother, to the effect that the "verite mycht be haun of the brut rased agains Jhone be Margret Hillok, his wyff. And that hyr fee and reward suld be any blak kyrtyll."

On the 25th of June, 1563, (upwards of a year since the commencement of the trial,) the superintendent "fyndes na cause of impotencye prouyn."

Whereupon, Margaret, in July, applied for a divorce, on the ground of adultery, proven against John, which was granted, and he was transferred to the temporal power for punishment of his crime.

* Griffith's Ryan, p. 111.

† Digest of Laws of New Hampshire, 1830, p. 157; Revised Laws of Illinois, 1833, p. 233; Revised Laws of Indiana, 1831, p. 213; Digest of Laws of Tennessee, 1831, p. 74; Laws of Missouri, 1825, p. 329.

an inch long, with a black spot in the centre, out of which he discharged urine."

By the Court. Take a decree for a divorce. Let each keep the property they have, and order the defendant to pay the costs, or be subject to execution for them.*

I do not find it mentioned in the laws of New Jersey, Georgia, and Michigan.

* Wright's Ohio Supreme Court Reports, p. 518.

CHAPTER IV.

DOUBTFUL SEX.

Denial of the existence of hermaphrodites, in the ancient sense of the term.

Notice of the various malconformations that have been observed. 1. Individuals exhibiting a mixture of the sexual organs, but neither of them entire. 2. Males with unusual formations of the urinary and generative organs. 3. Females with unusual formations of the generative organs. Ancient laws concerning hermaphrodites—English common law concerning them. Notice of Geoffroy St. Hilaire's late researches on hermaphroditism.

THE ancients have several fables founded on the idea of the union of the qualities of the male and female in the same individual. One of the personages who was supposed to be thus endowed was named Hermaphroditus, and from him the term *hermaphrodite* has come into general use, as applicable to this class of beings. Although formerly credited, yet it is now agreed that no such individual of the human species has ever existed; but it is equally well established that many cases of extraordinary malconformations have occurred. I conceive that the most useful notice of this subject will be to relate the more remarkable cases, according to the arrangement usually adopted by writers of the present day.

Considering, therefore, the subject of proper hermaphrodites, or those endowed with the sexual organs of both sexes entire, and capable of performing the generative functions, as fabulous, we shall examine those to whom the above term is at present commonly applied, under three classes.

1. *Individuals exhibiting a mixture of the sexual organs, but neither of them entire.* Examples of this class are rare;

and even these, when closely examined, show the predominance of one or other sex. Dr. Baillie mentions a case which was communicated to him by Dr. Storer, of Nottingham. "The person," he observes, "bears a woman's name, and wears the dress of a woman. She has a remarkable masculine look, with plain features, but no beard. She has never menstruated; on this account, she was desired by the lady with whom she lived as a servant, to become an out patient in the Nottingham hospital. At this time she was twenty-four years of age, and had not been sensible of any bad health, but only came to the hospital in order to comply with the wishes of her mistress. Various medicines were tried without effect, which led to the suspicion of the hymen being imperforated, and the menstrual blood having accumulated behind it. She was, therefore, examined by Mr. Wright, one of the surgeons to the hospital, and by Dr. Storer. The vagina was found to terminate in a cul-de-sac, two inches from the external surface of the labia. The head of the clitoris, and the external orifice of the meatus urinæ, appeared as in the natural structure of a female; but there were no nymphæ. The labia were more pendulous than usual, and contained each of them a body resembling a testicle of moderate size, with its cord. The mammæ resembled those of a woman. The person had no desire or partiality whatever for either sex."*

The Memoirs of the Academy of Dijon contain the following case, communicated by M. Maret: Hubert J. Pierre died at the hospital in October, 1767, aged seventeen years. Particular circumstances had led to a suspicion of his sex, and these induced an examination after death. His general appearance was more delicate than that of the male, and there was no down on his chin or upper lip. The breasts were of the middle size, and had each a large areola. The bust resembled a female, but the lower part of the body had not that enlargement about the hips which is usually observed at his age. On examining the sexual organs, a body four inches in

* Morbid Anatomy, third edition, p. 410.

length, and of proportionate thickness, resembling the penis, was found at the symphysis pubis. It was furnished with a prepuce to cover the glans; and at its extremity, where the urethra usually opens, was an indentation. On raising this penis, it was observed to cover a large fissure, the sides of which resembled the labia of a female. At the left side of this opening there was a small round body like a testicle, but none on the right; however, if the abdomen was pressed, a similar body descended through the ring. When the labia were pushed aside, spongy bodies resembling the nymphæ were seen; and between these, and at their upper part, the urethra opened as in the female, while below these was a very narrow aperture, covered with a semilunar membrane. A small excrescence, placed laterally, and having the appearance of a caruncula myrtiformis, completed the similarity of this fissure to the orifice of the vagina. On further examination, the penis was found to be imperforate; the testicle of the left side had its spermatic vessels and vas deferens, which led to the vesiculæ seminales. By making an incision into the semilunar membrane, a canal, one inch in length and half an inch in diameter, was seen, situated between the rectum and bladder. Its identity with a vagina was, however, destroyed, by finding at its lower part the verumontanum and the seminal orifices, from which, by pressure, a fluid, resembling semen in all its properties, flowed. The most astonishing discovery was, however, yet to be made. The supposed vagina, together with the bladder and testicles, was removed. An incision was made down to the body noticed on the right side. It was contained in a sac, filled with a limpid and red-colored liquor. From its upper part on the right side, a Fallopian tube passed off, which was prepared to embrace ovarium placed near it. It seemed thus proved that the body in question was a uterus, though a very small and imperfect one; and on blowing into it, air passed through to the tube.*

Giraud dissected a subject at the Hôtel-Dieu, who, during

* Mahon, vol. i. p. 100.

life, had been received in society as a woman, and was connected by a voluntary association with a man, who had for a long time performed the duties of a husband toward her. The bust had a masculine appearance; the chin was covered with firm hairs, very analogous to a beard; the neck was thick, the chest broad, the bosom slightly swollen, and the nipples exactly like those of a man. The lower half of the body presented a contrast to these characters. The soft and delicate contour of the lower limbs, the rounded hips, the broad pelvis, and the greater separation of the thighs, approximated decidedly to the female form. An imperforate penis, two testicles, and an appearance of vulva, were the external generative organs. The testes were well formed; the vesiculæ seminales imperfect; and the urethra opened at the cul-de-sac which represented the vagina.*

The following is a recent case exhibited in July, 1834, at Liverpool. The individual is a native of Saxony, with the voice and features of a man, a light beard on the upper lip, and the breasts not developed. He is thirty-four years old, and was considered at birth as a female, and dressed as such until about a year since, when Blumenbach and Tiedemann told him that he was a man. He then assumed the male attire. The scrotum is divided along the median line, resembling the female labia, and each of these contains a testis. On separating them, the glans penis, resembling a clitoris, is seen; it is covered with a prepuce, and has a fissure, but is imperforate. About an inch below, and nearly half an inch to each side of the raphe, are two very small orifices, through which, at periods of excitement, the semen flows. Still lower is a canal three inches long, impervious except at a narrow orifice, through which the urine flows. He had strong sexual desires.†

* Rees' Cyclopedia, art. Generation. The case is quoted from the *Journal de Médecine*, par Sedillot.

† American Journal of Medical Sciences, vol. xvi. p. 191, from the Liverpool Medical Journal. A more accurate account, by Dr. Handyside, with a plate, will be found in the *Edinburgh Medical and Surgical Journal*, vol. xlii. p. 313. This individual has constant connection with the male sex.

The case of the child examined by Professor Ackermann, of Jena, probably belongs to this division. It was born at Mentz, on the 14th of June, 1803, and died on the twenty-fifth of the month following. Dr. Ackermann viewed the body during life, and also dissected it after death. The penis was little more than an inch long; the glans was distinct about one-third of its whole length, but imperforated; there was, however, a depression where the urethra should have opened. On raising this cliteroid penis, as he calls it, an opening was observed, which was the orifice of a canal one inch in length. The uterus and urethra opened into the posterior part of this canal, and the testicles, with their tunicæ vaginales, were found in the labia. As to the internal organs, the urinary bladder occupied its usual place; one of the testicles had descended into the scrotum, and the other had advanced no further than the groin; both were perfect, and had their usual appendages complete. In the place usually occupied by the female uterus, there was found an organ closely resembling it. Its figure was pyriform, and it opened by a round orifice in the *vagina urethralis*, as he styles the canal, a little before the orifice of the urethra. The vasa deferentia penetrated the substance of the uterus at the points where the Fallopian tubes are usually placed, but, without opening here, passed on, and at length terminated, by very small orifices, in the *vagina urethralis*.*

Other cases are mentioned by various authors, but the similarity between them is so great as to render a further detail unnecessary. The examples now given show the principal deviations from the perfect structure that have been observed; and it will lead to clearer views concerning them, if we adopt the opinions of the reviewer of Ackermann, in the journal already quoted. "In the two sexes there are organs which correspond to each other, and which may be called analogous organs—the penis to the clitoris, the scrotum to the labia, the

* Edinburgh Medical and Surgical Journal, vol. iii. p. 202; Review of "*Infantis Androgyni Historia et Ichnographia*," etc. Auctore I. F. Ackermann.

testes to the ovaria, and the prostate to the uterus; and it further appears, that of these analogous organs, no two were ever found together in the same individual. *No monster has been described, having both a penis and clitoris; a testis and ovarium of the same side—we may venture to say, testes and ovaria; none having a prostate and uterus.*" This distinction will invalidate the account given by Maret, so far as it relates to the presence of an ovarium and a Fallopian tube; but I suggest whether it is not probable that the organ in question was a testicle, and its appendages malformed. The idea of our author is, also, no doubt correct, that in repeated instances the part deemed to be a uterus is a *malformed prostate*. "The proof rises almost to certainty, when we recollect that the prostate is the only male organ not accounted for in the hermaphrodite."* If these views be adopted, it will follow as a result, that beings of this class are to be considered as males; and it need hardly be added that they are impotent.†

There are, however, two cases on record which we cannot explain in conformity to the above opinions. Even if the first be deemed, as it doubtless is, imperfect, yet the last is vouched for by one of the most eminent anatomists of the present day.

The late Dr. Handy, of New York, in a letter to Dr. Edward Miller, dated at Lisbon, in 1807, states that he saw at that place a Portuguese, twenty-eight years old, of a tall and slender, but masculine figure. "The penis and testicles, with their common covering, the scrotum, are in the usual situation, of the form and appearance, and very nearly of the size of those of an adult. The preputium covers the glans

* Edinburgh Medical and Surgical Journal, vol. iii. p. 208.

† To this division, among recent cases, probably belong that at Guy's Hospital, of a person aged 20, in January, 1828, *Lancet*, N. S., vol. i. p. 593; and *American Journal of Medical Sciences*, vol. ii. p. 412. A case, much resembling that of H. J. Pierre, is said to have recently occurred in Sicily, in an individual dead at the age of 80, and who had been married as a female. (*London Med Gazette*, vol. x. p. 64.)

completely, and admits of being partially retracted. On the introduction of a probe, the male urethra appeared to be pervious about a third of its length, beyond which the resistance to its passage was insuperable by any ordinary justifiable force. There is a tendency to the growth of a beard, which is kept short by clipping with scissors. The female parts do not differ from those of the more perfect sex, except in the size of the labia, which are not so prominent, and also that the whole of the external organs appear to be situated nearer the rectum, and are not surrounded with the usual quantity of hair. The thighs do not possess the tapering fullness common to the exquisitely formed female; the ossa ilia are less expanded, and the breasts are very small. In voice and manners the female predominates. She menstruates regularly, was twice pregnant, and miscarried in the third and fifth month of gestation. During copulation, the penis becomes erect. There has never existed an inclination for commerce with the female, under any circumstances of excitement of the venereal passion. She, at present, labors under the venereal disease, and has warts on the labia.”*

Orfila and Marc both notice this case, and urge that a perfect anatomical examination of the supposed testicles was wanting. They incline to the idea that the partially perforated penis was of a cliteroid nature. They agree, however, in deeming the subject a female.

In the following case, however, the dissection was ample. It was related to the Academy of Sciences of Berlin in 1825, by Rudolphi. The body was that of a child who had died, as it was said, seven days after birth; but from the development present, it was probably several weeks old. “The penis was divided inferiorly; the right side of the scrotum contained a testicle; the left side was small and empty. There was a uterus which communicated at its superior and left portion with a Fallopian tube, behind which was an ovary destitute of its ligament. On the right side there was neither Fallopian

* New York Medical Repository, vol. xii. p. 86.

tube, nor ovary, nor ligament, but a true testicle, from the epididymis of which there arose a vas deferens. Below the uterus there was a hard, flattened, ovoid body, which, when divided, exhibited a cavity with thick parietes. The uterus terminated above in the parietes of this body, and at the right the vas deferens, without, however, penetrating into its cavity. Finally, at its inferior part, there was a true vagina, which terminated in a cul-de-sac. The urethra opened into the bladder, which was natural. The anus, rectum, and the other organs were naturally formed. Professor Rudolphi considered the ovoid body, situated beneath the uterus, as the prostate and vesiculæ seminales in a rudimental state.”*

Mr. E. Smith relates the following in the *London Medical*

* American Journal of Medical Sciences, vol. ix. p. 499.

The case of Maria Derrier, (Carl Durrge,) which in previous editions I referred, with some hesitation, to the second class, must now be arranged under this.

Durrge died at Bonn, in March, 1835, of apoplexy, aged 55 years. He was examined by Professor Mayer, and from his account I take the following facts:—

Osiander, Kopp, Sömmering, Cooper, Lawrence, Green, and the Medical Faculty of Paris pronounced him, during life, a malformed male; Hufeland, Gall, and Brookes a female; while some considered him to belong to neither sex. In his twentieth year, he had discharges of blood from the genital organs three times, but none since. His beard grew sparingly and his breasts were large.

The penis (imperforate) was about two inches long, and retracted beneath the skin of the mons veneris, and immediately at its lowest surface was an opening of the size of a large quill. A septum divided this from a large canal, which represents the vagina. The urethra is thus at the root of the penis, and immediately surrounded by the prostate gland. Immediately back of the vagina is the uterus. The Fallopian tubes open regularly into the fundus uteri, and upon the left side, behind and without the corresponding ostium abdominale of the Fallopian tube, is a small, flat, round body, resembling an ovarium. On the right side, close, to the abdominal end of the Fallopian tube, there is a small flat body, to which a string of vessels and muscular fibre is attached.

Dr. Mayer thus supposes this case to present characteristics of both sexes—the withered testicle, the penis, and the prostate gland; and on the other hand, the uterus, vagina, Fallopian tubes, and ovarium-like body. (*London Med. Gazette*, vol. xviii. p. 217; *Philadelphia Medical Examiner*, April 10, 1841.)

Gazette, vol. xxxiii. p. 174. A child was born with a body much resembling an imperforate penis, two organs analogous to a divided scrotum, and a urethral opening at the base of the penis. Several skillful anatomists declared it to be a malformed male. It died in about eight weeks after birth, and, on dissection, a well-formed uterus, with its Fallopian tubes and ovaries were found. There was no urethra, but the neck of the bladder was inserted in the vagina. No traces of testes or of spermatic cord could be discovered.

2. *Male individuals with unusual formation of the urinary and generative organs, (androgyni.)* "The ambiguity in these cases depends commonly on the testes being contained in separate parallel folds of the skin; the penis being imperforate, and the urethra opening in the perinæum, on the surface of a blind aperture, having a red and tender appearance, and easily mistaken for the vagina. In such an individual, the penis being imperforate, and probably smaller than usual, is considered as a large clitoris; the folds of the skin holding the testes very much resemble the female labia, and the red slit behind which the urethra ends, is tolerably analogous to the vagina."* A marine, answering perfectly to this description, was sent to the hospital at Toulon, in 1799, as a hermaphrodite. He was about twenty years of age, with little beard, and breasts resembling those of a girl at sixteen. A discharge from the service was procured for him.† Individuals of this class appear to have the testes and vesiculæ seminales perfect,

* Rees' Cyclopaedia, art. *Generation*.

† Foderé, vol. i. p. 357. An instructive case, accompanied with a plate, is related by J. S. Soden, surgeon at Coventry. The individual resided at that place, and wore the attire of a female. The beard was strong, the breasts flat, and hips straight. The genital organs generally resembled the above description. The scrotum contained the testes, but it was divided, and resembled the labia. The urine was evacuated at the perinæum. (*Edinburgh Med. and Surg. Journal*, vol. iv. p. 32.) There certainly can be no doubt of this person being a male.

The Saxon case, that I have described on a previous page, might with propriety be arranged under this division, were it not for some circumstances mentioned in Dr. Handyside's narrative.

but they must evidently be impotent from the imperforation of the penis and the opening of the ejaculatory ducts near the perinæum, where the semen is of course expelled.

Deviations less marked have also been observed, and, among others, a confinement of the penis to the scrotum, by a particular formation of the integuments, has occasioned persons to be reputed hermaphrodites. In these the urine passes in the direction downward, and the confinement of the organ will not allow of its performing the sexual functions. Mr. Brand relates, that being consulted in 1779, on occasion of some complaint in the groin about a child seven years of age, he found a vicious structure of the sexual organs, consisting in the presence of such an unnatural integument. This child had been baptized and brought up a girl, but it was evident to him erroneously, as the male organs were present. By a slight incision, he liberated the restricted parts, and proved to the parents that they had mistaken a boy for a girl.*

Lastly, males are supposed to be hermaphrodites when the anterior wall of the urinary bladder is deficient, together with the lower and anterior portion of the abdominal muscles and integuments, while a red and sensitive mass of an irregular and fungous-like substance, with the ureters opening on it, is placed at the lower part of the abdomen. I have already referred to the elaborate essay of Dr. Duncan, Jr., on this subject. He has collected a great number of cases, and from his deductions it appears that important alterations in the generative organs are generally observed connected with this deformity. The urethra is deficient, and the penis consequently imperforate. It is also very short, never exceeding

* Brand, quoted in Brewster's Edinburgh Encyclopedia, art. *Hermaphrodites*.

"Myself, passing by Vitny le Francois, a town in Champagne, saw a man the bishop of Soissons had, in confirmation, called *German*, whom all the inhabitants of the place had known to be a girl, till two and twenty years of age, called Mary. He was at the time of my being there very full of beard, old and not married; he told us, that by straining himself in a leap, his male instruments came out." (Montaigne's Essays.) Ambrose Paré also mentions this case.

two inches, even in the adult. The vesiculæ seminales open near the fungous mass above mentioned, or in the urethra, or in a small tubercle at the root of the penis. The testicles are generally natural, either contained in the scrotum, or they have not descended. The sexual appetite in some of these individuals has been weak, in others strong, in others altogether wanting.*

They are not capable of procreating the species, in consequence of the shortness and imperforation of the penis, and the seminal ducts opening externally.†

* Edinburgh Medical and Surgical Journal, vol. i. pp. 54 to 58. The following is an exception of the general rule, unless we suppose the malformation to have been slight, and the prevalent opinion to have been drawn from the appearance: "In the year preceding (1459) there was a bairn which had the kinds of male and female, called in our language a *scarcht*, in whom man's nature did prevail: but because his disposition and portraiture of body represented a woman, in a man's house of Linlithgow, he associated in bedding with the goodman's daughter of the house, and made her to conceive a child; which being divulgate through the country, and the matrons understanding this damsel deceived on in this manner, and being offended that the monstrous beast should set himself forth as a woman, being a very man, they got him accused and convicted in judgment for to be burnt quick, for this shameful behavior." (Piscottie's History of Scotland; Edinburgh, 1778, p. 104.)

† Under this head, I apprehend, must be arranged the case of Sarah Tibbert, aged six, admitted into St. George's Hospital, London, 1825. (Lancet, vol. viii. p. 95.)

That of a negro child, aged six, described by Dr. Heustis, of Alabama, in whom the penis is perforated, but the urethra opens externally at its root. The rudiments of testicles are felt in the sacculi on each side of the scrotum. (American Journal of Medical Sciences, vol. vii. p. 557.)

One by Dr. Hervey, of an individual who died at the hospital of Bourg in France, aged 17. (American Journal of Medical Sciences, vol. iii. p. 185, from the Journal Générale.)

Mary Cannon, who died at Guy's Hospital in 1829, aged 55 or 60. This hybrid formerly wore man's dress, had worked as a laborer, and had been engaged in pugilistic combats. For the last seven or eight years, she appeared as a female. (Lancet, N. S., vol. v. p. 181; and London Medical Gazette.)

Marie Marguerite, whose history was given by Dr. Worbe to the Faculty of Medicine in Paris in 1815. (Dictionnaire des Sciences Medicales, art. *Hermaphrodite*.)

Fenolio's case of a soldier is similar to the above, except that the breasts

3. *Females with unusual formations of the generative organs, (androgynæ.)* An enlargement of the clitoris is probably the

were remarkably developed. (*Encyclographies des Sciences Medicales*, vol. ii. p. 234.)

The case by Gendrin, where the person was considered a female until the age of 19, (in 1831,) when, on examination, the registry of baptism was ordered to be altered, and the name changed to that of a male. (*Medico-Chirurgical Review*, vol. xxi. p. 172, from the *Revue Medicale*.)

And probably the two cases described by Dupuytren to the Royal Academy of Medicine at Paris, in 1830. (*North American Medical and Surgical Journal*, vol. xii. p. 224.)

A German recently exhibited to the Royal Academy of Medicine by M. Bally. The scrotum had a deep furrow, on each side of which was contained a testicle. There was an imperfect penis, an inch and a half long, and below it a passage leading to the bladder, and through which the urine flowed. The urethra had become thus enormously distended in consequence of repeated acts of copulation, to which he had submitted in consequence of supposing himself a female. His appearance is that of the sex, and he states that the enlargement was gradually made. When informed that he was a male, he assumed the proper dress, but found himself impotent. (*American Journal Med. Sciences*, vol. xx. p. 479, from *Gazette des Hôpitaux*.)

A somewhat similar case related by M. Benoit. (*Medico-Chirurgical Review*, vol. xxxix. p. 537.)

Another, by Dr. D. Davis, *Obstetric, Med.*, p. 63, is as follows: A person in London was baptized as a female—dressed as such, and during the years of childhood and adolescence believed herself belonging to that sex. Her passion became so far developed as to cause her to make advances to a gentleman, who, being disappointed, committed a furious breach of the peace. The police took both into custody, and this finally led to an examination, at which Dr. Davis, Professor Pattison, and several others were present. A substance resembling the clitoris, but a little larger, was seen, having about half an inch of its gland, uncovered by its prepuce. Below the root of this cliteroid body, on raising it a little, a small orifice was observed communicating with the bladder. Precisely at the usual locality of the opening into the vagina, there was a round aperture of scarcely half an inch in diameter. This aperture was surrounded by a carneo-membranous structure of no great thickness, but of considerable firmness and tenacity. Dr. Davis experienced so much resistance on attempting to pass the finger that he did not dare to continue it; but on introducing a bougie, a cul-de-sac was found at about an inch beyond. On each side of this opening were two full developed pendulous bodies, evidently testes, which communicated by spermatic cords, of the usual bulk and feel, with the abdominal cavity. The breasts were not developed, and the voice was rough. Dr. Davis very justly considers the sex of this person as masculine.

most common cause that has led to mistakes concerning this sex. It is not common in Europe, but is quite frequent in warm climates, insomuch that excision of it is said to be sometimes practiced.

Sir Everard Home relates an instance in a Mandingo negress, aged twenty-four years. Her breast was very flat, her voice rough, and her countenance masculine. The clitoris was two inches long, and in thickness resembling a common-sized thumb; when viewed at some distance, the end appeared round, and of a red color; but on a closer inspection, was found to be more pointed than that of a penis, not flat below, and having neither prepuce nor perforation. When handled, it became half erected, and was then three inches long, and much larger than before; and on voiding her urine, she was obliged to lift it up, as it completely covered the orifice of the urethra. The other parts of the female organs were found to be in a natural state.* It is proper to observe in this place, that in new-born children the clitoris is proportionably very large.

A case of this description occurred in Pennsylvania, and is related by Dr. Wm. Harris. At birth the clitoris was unusually long, but the child was declared a female. It grew rapidly up to the age of puberty, when the individual assumed

* See Home on Hermaphrodites. (Philos. Trans., vol. lxxxix. p. 157.) Many other cases are said to be collected in the work of Dr. Parsons on Hermaphrodites. (See a case by him of a French girl, in Philosophical Transactions, vol. xlvii. p. 142.)

This malconformation rarely occurs in temperate climates; but still many cases are related. "An entire quarto thickly-printed page of references to cases of monstrous clitorides, is given in the *Ephem. Germ.*" (Davis, *Obstetric Medicine*, p. 60.) This author refers to a case of extirpation by Mr. Richard Simmons, of London, in which the length was nine inches, and the circumference of the largest part of the stem five inches. Its general appearance was very smooth and fleshy, and its upper surface covered with cuticle. (*Ibid.*, p. 61.) My colleague, Professor Delamater, has mentioned to me a case within his own observation, where the husband became extremely dissatisfied, and indeed thought of applying for a divorce, on account of the impediments he met with from what proved to be an enlarged clitoris. Its removal obviated his objections.

a masculine appearance, and delighted only in manly sports and the labors of the field. "At eighteen years of age she was nearly six feet high, and exchanged her female for male attire. She married at twenty-five; seemed to have great enjoyment in copulation; the clitoris was five or six inches long. She died at sixty. No post-mortem examination was made. Her friends asserted that she differed from a female only in the enlarged clitoris."*

In 1814, a female named Mary Madeline Lefort excited great attention in Paris, and subsequently in London, as a reputed hermaphrodite. She was examined by a committee of the Faculty of Medicine of that city, (consisting of Chaussier, Petit-Radel, and Beclard,) and from their report it appears that the breasts were sufficiently developed, and there were perfect areolæ on the nipples. The upper lip and chin were covered with a beard. The clitoris, resembling much a small penis, an inch and a half long, and invested with a movable prepuce, emerged from under the symphysis pubis, and, shooting out from between the superior part of the labia, terminated by an imperforated glans. At the root of the clitoris is an opening through which the urine and *menses* flowed. On separating the labia, a thick membrane was seen to extend from one to the other, and from the lower angle formed by their union, upward as far as the prominent clitoris already described. Dr. Granville supposed that this membranous partition covers the orifice of the vagina, and that an incision made into it would at once expose that cavity in its natural state. Mr. Brookes, the anatomist, proposed to effect an enlargement of the opening of the vagina; but the subject of the malformation refused, calculating, no doubt, that such an operation might have injured the interests of her gainful vocation. An incomplete urethra was in this case produced under the clitoris, and it was this circumstance which constituted its resemblance to a penis. But the presence of organs essential

* Philadelphia Medical Examiner, vol. ii. p. 314.

to the female, such as the uterus and vagina, leave no doubt of her sex.*

A prolapsus of the uterus is another circumstance which has occasioned females to be deemed hermaphrodites. Margaret Malaure came to Paris in 1693, dressed as a man. She considered herself as possessing the organs of both sexes, and stated that she was able to employ both. Her person was exhibited, and several physicians and surgeons agreed with the common opinion so much, as to give certificates that she was a hermaphrodite. Saviard, an eminent surgeon, was, however, incredulous. He examined her in the presence of his brother practitioners, and found that she had a prolapsus uteri, which he reduced.†

Sir Everard Home mentions a similar case of a French woman whom he himself examined. She was shown as a curiosity, and, in the course of a few weeks, made £400. The prolapsus was evident on inspection. She, however, pretended to have the power of a male.‡

The following may be subjoined under this division:—

History of a supposed Hermaphrodite, by Robert Merry, Surgeon, and its dissection by Sir Astley Cooper.—Mary Bennet, aged eighty-six years, died in 1840, of a gradual decay of her natural powers. She had resided in Herefordshire for the greater part of her life, obtaining her bread generally as a straw-plaiter, and occasionally going out as a char-woman.

* London Medical Repository, vol. iv. p. 414; Orfila's Leçons, vol. i. p. 153; Davis' Obstetric Medicine, p. 62; Elliotson's Blumenbach, pp. 420, 422; Cyclopædia of Practical Medicine, art. *Sex*, (*doubtful*,) by Dr. Beatty: Medico-Chirurgical Review, vol. xxxi. p. 120.

Parent-Duchatelet speaks of a large clitoris occurring in a prostitute in Paris. It was three inches long, and of the thickness of the ring-finger, with a well-formed glans, and covered with a prepuce—"c'était, a s'y meprendre, la verge d'un enfant de douze a quatorze ans, peu avant sa puberté." (De la Prostitution, vol. i. 220.) This female had never menstruated, and the uterus was probably wanting.

† Mahon, vol. i. p. 96.

‡ Home ut antea. A case similar to the above is related in Parentini Pandectæ, vol. i. p. 38.

She was extremely muscular and powerful, capable of severe labor. As a girl, previous to puberty, nothing is positively known about her, but there was a rumor that she was not formed like other girls. No menstrual secretion ever appeared during her life; she had nipples, but no protuberant breasts. Her voice was gruff and masculine, as was her general appearance. She was never married, disliked the society of men, and shunned that of women, and, during the greater part of her life, inhabited a cottage by herself.

Mr. Merry, soon after death, removed the parts of generation, and gave them to Sir Astley Cooper. "The pudenda and mons veneris had their usual clothing, and upon separating the labia, the glans and corpus clitoridis appeared of a very unusual length, being elongated to two inches. The papillæ of the glans were particularly large and conspicuous, and must have possessed an extreme degree of sensibility. There was a slight depression in the glans where the urethra might have been supposed to exist, but there no opening existed. Much nearer to the pubes, on the lower part of the clitoris toward the perinæum, the urethra appeared open upon its under side, and some *lucunæ* were seen there, but under the arch of the pubes a circular opening existed, which was the urethra, resembling the orifice of the *meatus urinarius*." The labia projected on each side of the clitoris, but they contained no testes, and the projection was found to consist of fat. A bougie passed readily from the urethra into the bladder. In the urethra, under the pubes, *when its canal was opened*, there appeared a longitudinal opening between the folds of membrane. This opening or slit led directly into the vagina; it was longer from before backward, than from side to side, and its size would allow a common pen to enter it. The vagina had no *os externum*, but only this slit from the urethra. It terminated in a well-formed *os uteri*. The uterus was of its usual form, and had a Fallopian tube attached to its fundus, and the ligaments of the ovaria to its side. On the right side the ovarium remained, and had its usual internal appearance, but it was not more than half its natural size.

"This woman, therefore, (concluded Sir Astley,) differed from others in the magnitude and length of the clitoris, in the absence of the external orifice of the vagina, which began from the urethra itself, and in the imperfect development of the ovarium."* And to this imperfect development he ascribes the suppression of the menstrual secretion.—*Guy's Hospital Reports* for October, 1840.

It will readily be observed from the above illustrations, that all the cases of supposed hermaphrodites are referable to the classes now described. They are either males, with some unusual organization or position of the urinary or generative organs; or females, with an enlarged clitoris, or prolapsed uterus; or individuals in whom the generative organs have not produced their usual effect in influencing the development of the body.† Thus it is evident, that instead of combining the powers of both sexes, they are for the most part incapable of exerting any sexual function.‡

Yet the prejudices of ancient nations seem to have marked these unfortunate individuals as objects of persecution, and to have subjected them to the operation of the most absurd and cruel laws. Diodorus mentions that they had been burned by the Athenians and Romans. At an early period of Roman

* A remarkable case, exemplifying the union of penis, uterus, vagina, testes, and rudimentary ovaries, came under the observation of Prof. Horace A. Ackley, of Cleveland, Ohio, and was reported by Prof. George Blackman in the *Am. Jour. of Med. Sciences*, July, 1853, p. 63. See also remarks on this case by Prof. J. B. S. Jackson in same journal, Oct. 1853.

† In a recent discussion at the Academy of Medicine at Paris, Adelon, a very high authority, maintained that all the cases were referable to one or other of the above classes; and that there never was "a coexistence of the parts belonging to, or characteristic of, either sex, in one being." (*Med.-Chir. Review*, vol. xxv. p. 237.)

‡ Velpeau, in his *Midwifery*, (American edition, p. 81,) has suggested that in some of the supposed cases of hermaphroditism, congenital hernia of the ovaries may be mistaken for testicles. He refers to the case of Prof. Mayer, of Bonn, and also one examined by Marjolin. In the former, (a child six months old,) there were a uterus, vagina, and Fallopian tubes; while on the sides there were folds of the skin like a split scrotum, with oval bodies in each. The clitoris was separated at its glans by a fissure. (*Lancet*, vol. ix. p. 169, from *Graefe's Journal*.)

history, a law was enacted that every child of this description should be shut up in a chest and thrown into the sea; and Livy gives an instance, where, on some difficulty with respect to the sex of a newly-born infant, it was directed to be thrown into the sea—*tanquam fædum et turpe prodigium*.* The Jewish Talmud, we are told, contains many ordinances founded on the apparent predominance of sex.

The canon and civil law have also many enactments concerning them. Among other questions vigorously debated, was that whether they should be allowed to marry; and it appears that they were even not prevented; but if the two sexes were equal, a choice of the object was left. Some learned opinions on this subject may be found in Valentini.†

Hermaphrodites could not, however, be promoted to holy orders, on account of their deformity or monstrosity; nor could they be appointed judges, “because they are ranked with infamous persons, to whom the gates of dignity should not be opened.”

An old French law allowed them great latitude. It enacted that hermaphrodites should choose one sex, and keep to it.‡

The absurd notions and practices have now disappeared; but the subject is, notwithstanding, important on many accounts, as these unusual deviations often render the sex of an individual doubtful, and impose even on professional persons. The question may be important in deciding the employment in life of an individual, the descent of property, and the judicial decision concerning impotence or sterility. Thus, Mr. Ferrien, a modern physician, informs us that he was consulted by the relatives of a young nobleman laboring under a dubious con-

* Livy, 27, 37; Eutropius, 4, 36.

† Novellæ Cas. 10, de matrimonio hermaphroditæ.

‡ Male, p. 278. “The Hindoo Institutes of Menu provide for some rare and singular contingencies. For instance, the inheritance of a son being a whole, and that of a daughter a half, there is a peculiar sagacity and foresight in directing that the portion of a *hermaphrodite* shall be half of the one and half of the other, or three-fourths.” (The Chinese, by J. F. Davis; London, 1836, vol. i. p. 221.)

formation, who, if a male, as was commonly believed by them, would inherit a considerable estate, but to which he could have no right if he belonged to the other sex. The whole external mien resembled that of girls of twelve years of age; the breasts were quite flat, and the voice masculine. An external sexual organ of small size was present, but without a urethra. In the scrotum was a deep fissure, through which the urine was discharged. He was induced to declare her a female, and thus she would consequently lose the expected inheritance. This decision is, however, incorrect, at least if we adopt the views already laid down.

The following circumstances are worthy of notice, in forming our opinions on contested cases: The beard, the hair on various parts of the body, the desires excited by the presence of women, the testes and their cords, and the comparatively greater breadth of the shoulders than of the pelvis and hips, show us that the individual is a man. The smoothness and softness of the body in general, the absence of the beard and of hair on the body, the menstrual discharge, the want of testes, and the superior breadth of the hips, prove the individual to be a woman.

On proceeding to the sexual organs, a male with a fissure in the perinæum, and an imperforate penis, may be ascertained by the size of the penis, by the different organization of the prepuce from that which covers the clitoris, by the absence of nymphæ and hymen, and probably by the presence of testes. The different relation of the fissure in the perinæum to the penis, from that of the meatus urinarius to the clitoris in the female, will assist the decision; as also the want of power to pass an instrument toward the situation of the uterus.

On the other hand, a female is indicated by the size of the clitoris, and its different shape; by the connection of its prepuce with the nymphæ, and the presence of the latter parts; by the separate opening of the vagina and meatus urinarius, and by the presence of the hymen, and the absence of the testicles.

All these circumstances now enumerated tend to assist us

in viewing the adult; but the difficulty is much increased with new-born children. In such instances, a close and accurate examination is required, founded on the distinctions already laid down, so far as they are applicable.*

The English common law on this subject, and which, of course, is binding in this country, is thus laid down by Blackstone and Coke: "A monster having deformity in any part of its body, yet if it hath human shape, may inherit."† And "every heir is either a male or a female, or an hermaphrodite, that is, both male and female. And an hermaphrodite (which is also called androgynus) shall be heir, either as male or female, according to that kind of sex which doth prevail; and accordingly it ought to be baptized."‡ The same rule, he observes, (*hermaphrodita tam masculo quam feminæ comparatum secundum prævalescentiam sexûs incalescentis*,) guides in cases concerning tenant by the curtesy.§

I prefer subjoining the views of St. Hilaire on Hermaphroditism, to incorporating them in the body of this chapter. They are taken from an analysis of his work in the New Edinburgh Philosophical Journal, vol. xv. p. 298, and the Lancet, N. S., vol. xii. p. 48.||

St. Hilaire divides the generative apparatus into six different portions or segments, three on a side, which, in several respects, are independent of each other. 1 and 2. The deep-seated organs, testicles, and ovaries. 3, 4. The middle organs, womb or prostate, and vesiculæ seminales. 5, 6. The external organs, penis and scrotum, clitoris and vulva.

When the number of these parts is not changed, and there is simply a modification in their development, we have the

* I am much indebted, on this subject, to the articles *Generation* in Rees' Cyclopaedia, and *Hermaphrodites* in Brewster's. The former is an elaborate and able production, from the pen of Mr. William Lawrence. See also the article on this subject by Marc, in the Dictionnaire des Sciences Medicales, vol. xxi.; and for some discussions on the Theory of Hermaphroditism, by Dr. Knox, of Edinburgh, see Dr. Brewster's Journal of Science, N. S., vol. ii. p. 323.

† Blackstone, 2, 247.

‡ Coke Littleton, 8, a.

§ Ibid., 29, b.

|| See also Medico-Chirurg. Review, vol. xxxi. p. 114.

FIRST CLASS, or *hermaphroditism without excess*. This again is subdivided into four orders. 1. *Male Hermaphroditism*, when the generative apparatus, essentially male, presents in some one portion the form of a female organ—as a scrotal fissure, resembling in some respects a vulva. 2. *Female H.*, where the apparatus, though essentially female, yet offers in some one portion the form of a male organ, as in the excessive development of the clitoris. 3. *Neutral H.*, when the portions of the sexual apparatus are so mixed up, and so ambiguous, that it is impossible to ascertain to what sex the individual belongs. 4. *Mixed H.*, when the organs of the two sexes are actually united and mixed in the same individual. Of this there are several species: *Alternate*, when the deep organs belong to one sex, and the middle to the other, while the external present a mixture of both. *Lateral*. In this, the deep and middle organs, when viewed on one side of the median line, appear to belong to the male sex, while on the other they are female; the external organs, as in the former species, are partly male and partly female. *Hemilateral*. *Interchanging*.

The SECOND CLASS includes all anomalies with excess of parts, and is divided into three orders. 1. *Complex Male H.*, where we find, with an apparatus essentially male, some supernumerary female organ, as a uterus, etc. 2. *Complex Female H.*, with the addition of a male organ, as a testicle, etc., to an apparatus essentially female. 3. *Bisexual H.*, where a male and female apparatus exist in the same individual. St. Hilaire allows, however, unequivocally, that the external organs (as penis and clitoris) have never been found perfectly double. “The researches of modern anatomists have completely set at rest the long debated question of hermaphroditism, in the vulgar acceptation of the word. It is anatomically and physiologically impossible.”*

* The most remarkable instance of *bisexual* hermaphroditism is said to be that recorded by Schrell, a German anatomist, in 1804. “In this case, there existed beneath a true penis, and independently of the testicles and vasa deferentia, which were naturally formed, a small vulva, furnished with labia and nymphæ, and communicating through a true vagina, with a rudimentary

“With respect to legal medicine, it is sufficient for me to point out here,” says the author, “the insufficiency of the precepts given by authors for the determination of the sex in doubtful cases—precepts which have appeared exact, only because there had been but a very few of the combinations distinguished which nature presents. This difficulty in distinguishing the sex is the consequence of the general fact, that while the internal organs vary almost to infinity in number, structure, and arrangement, (being either *internal male*, *internal female*—a *double set* of organs which are male and female—or finally *ambiguous*, being neither male nor female,) the external ones preserve their normal number; and the modifications which they present in other respects, being intermediate between the male and female sexes, are included within limits sufficiently narrow. It is then impossible that a particular arrangement of the external organs could correspond to each of the special combinations of the internal organs.”

Lastly, the author remarks that legislation, admitting only two grand classes of individuals, on whom it imposes duties and grants different and almost opposite rights, according to their sex, does not truly embrace the entire of the cases; for *there are subjects who have really no sex*, such as neuter hermaphrodites, and hermaphrodites mixed by superposition; and on the other hand, certain individuals, the bisexual hermaphrodites, who present the two sexes united in the same degree.*

uterus, provided with round ligaments and imperfectly developed ovaries. Here the two sets of organs were nearly complete, but the male organs were fully developed, while the female remained in a rudimentary state.” (British and Foreign Med. Review. vol. viii. p. 29.)

* A remarkable case of this description, which occurred in Paris to Prof. Bouillaud, the editor of the Journal Hebdomadaire, is given from that journal in the Lancet, N S., vol. xii. p. 60, and Medico-Chir. Review, vol. xxiii. p. 237. The subject, aged 62, and a widower, who died of cholera, was apparently a male; yet, on dissection, a womb and its ovaries were found. There was a perfect prostate gland. The testicles, vesiculæ seminales, and vasa deferentia were wanting. The penis had a well-formed glans and pre-

If the reader will compare this analysis with the accompanying chapter, he will readily observe in what respects the ob-

puce. A vagina, about two inches long, connected the uterus with the urethra. The external genital organs of the female were entirely absent; but the general conformation (except a thick but soft beard) inclined to that sex.

Geoffroy St. Hilaire and Manec observe on this case, that "We must distinguish the organs of reproduction, and those of mere copulation; there may be an amalgamation or coexistence of the latter, but not of the former."

There is an elaborate review of the work of St. Hilaire on *Anomalies of Organization* (monstrosities) in the *British and Foreign Medical Review*, vol. viii. pp. 1, 36.

I must also not omit referring to a very learned and elaborate article on "Hermaphroditism," by Professor Simpson, of Edinburgh, in the *Cyclopedia of Anatomy and Physiology*.

[A case of malformation of the sexual organs came under the observation of Prof. S. D. Gross, in which both penis and vagina were wanting, "but in the place of the former there was a small clitoris, and instead of the latter a cul-de-sac, covered with mucous membrane, the urethra occupying the usual situation in the female; the nymphæ unusually small, but the labia were developed, and containing each a testis quite as large, consistent, and well shaped as they ever are in boys of this age," (three years;) castration was performed by Prof. G., the propriety of this operation being concurred in by Prof. Miller, of Louisville, who saw the child in consultation. The case is reported by Prof. Gross in the *Am. Journ. of Med. Sciences*.

The patient had always been regarded as a girl, having been so considered by the accoucheur, but at the age of two, the feelings and disposition of a boy began to be manifested. The operation was performed with the humane object of preventing the development of sexual desire at the age of puberty, which, under the circumstances, it was considered could only be productive of evil. Taking this view of the matter, the parents were solicitous for the operation. The patient was under the observation of Prof. Gross for several years afterwards. The habits and disposition subsequently manifested were those of a girl. The person was well developed, and the mind uncommonly active for a child of his years.

The motives of Professors Gross and Miller in the treatment pursued in this case cannot be questioned; and looking solely to the future happiness of the child, the propriety of the practice would admit of, to say the least, a warm defence. Other considerations, however, are involved. The question arises, whether we have a right to deprive a person of the sexual propensity, admitting that insuperable difficulties in its exercise are incident to malformation, and that the possession of it cannot fail to lead to painful consequences. Another point relates to the position of the person, as regards sex, after the operation. The presence of well formed and fully developed testes entitles the case to be ranked among those of male hermaphroditism.--A. F.]

servations of M. St. Hilaire are to be deemed original. So far as they relate to legal medicine, distinct from the mere enunciation of facts, we may presume that little or no improvement can be made in our existing law, unless the mixed class be actually precluded from the power of inheriting.

CHAPTER V.

RAPE.

1. Signs of virginity—opinion of anatomists concerning them.
2. Signs of defloration and rape; diseases that may be mistaken for the effects of violence; value to be attached to external injuries as proof. Possibility of consummating a rape. False accusations. Appearances when death has followed violation. Case of Mary Ashford.
3. Laws of various countries as to the violation of children under ten years of age. Credibility of witnesses in these cases. Laws of various countries concerning the punishment of rape. Discussion as to the circumstances which constitute the crime in law. Diversity of decisions in England and this country. Late English law defining them, with decisions under the same.
4. Whether the presence of the venereal in the female should invalidate her accusation. Of rape during sleep, without the female's knowledge. Of pregnancy following rape. Law on this point. Of pregnancy following defloration. Rape on persons under the influence of anæsthetic agents.

No CASE can occur in which public feeling is more warmly or justly excited, than where an attempt is made to injure or destroy the purity of the female. According to our system of laws, the testimony of the insulted individual is sufficient to condemn the criminal; yet notwithstanding this correct disposition, it not unfrequently occurs that the opinion of the physician is required, in order to elucidate various difficulties connected with the accusation. I shall, therefore, follow the plan pursued by all systematic writers on this subject, and commence with a notice of the signs of virginity. A knowledge of these is generally required in cases where children of a tender age have been abused; and again, they need to be known in those instances where malicious charges have been made by abandoned females. No remark can be more correct than that of Sir Matthew Hale, concerning this crime: "It is

an accusation," says he, "easy to be made and harder to be proved, but harder to be defended by the party accused, though innocent." The signs of rape will necessarily form the second division; thirdly, the laws of various countries on that crime; and lastly, an examination of some medico-legal questions connected with the subject.

1. The physical signs of virginity have been the subject of keen discussion among anatomists and physiologists, and none of them has heretofore led to greater inquiry than the *existence of the hymen*. This is understood to be a membrane of a semilunar, or occasionally of a circular form, which closes the orifice of the vagina, leaving, as a rule, an aperture sufficiently large to permit the menses to pass, but occasionally found to be imperforate.* A great difference of opinion formerly existed concerning its presence. Some distinguished physiologists have denied its existence altogether, or in the cases where it is found, consider it a non-natural or morbid occurrence. Among these, may be enumerated Ambrose Paré, Palfyn, Pinæus, Columbus, Dionis, and Buffon. "Columbus," says Zacchias, "did not observe it in more than one or two instances; and Fallopius, in not more than three females out of thousands whom he dissected."† "Paré," says Mahon, "considers the presence of the hymen as contrary to nature; and states that he searched for it in vain in females from three to twelve years of age."‡ Those on the contrary, who, from dissection, have believed in its presence previous to sexual intercourse, or some other cause destroying it, are Fabricius, Albinus, Ruysch, Morgagni, Haller, Diemerbroek, Hiester, Riolan, Sabatier, Cuvier, Blumenbach, and I may add Denman. Haller appears to have observed it in persons of all ages.§ Cuvier has not only found it in females, but

* Dr. Gross states, that in the majority of cases observed by him, it was of an oblong oval shape. (Western Journal Med. and Phys. Sciences, vol. x. p. 56.)

† Zacchias, vol. i. p. 376.

‡ Mahon, vol. i. p. 118.

§ "Ego quidem in omnibus virginibus reperi, quarum aliquæ adultæ erant ætatis, neque unquam desideravi, neque credo a pura virgine abesse. Vidi hymenem bis in fœtu, sexies in recens nata, bis in puella aliquot septi-

has also observed a fold answering to it in mammiferous animals, and thus gives strong evidence of its existence by analogy.* Gavard, who appears to have dissected a great number of subjects at the *Hôpital de la Salpêtrière*, and also at the dissecting room of Desault, states that he constantly found this membrane in the foetus, and in children newly born. In others of a more advanced age he also observed it; and in particular in a female fifty years old, whom he was called to sound, he found it untouched; so also in another, whom he attended with Professor Dubois.†

The general sense of the profession is now decidedly in favor of its existence. The following circumstances, however, require to be noted before we form an opinion concerning it as a sign of virginity. *It may be wanting from original malconformation, or it may be destroyed by disease or some other cause, and yet the female be pure.* Thus the first menstrual flux, if the aperture be small, may destroy it—or an accident, as a fall‡—or disease, as for example an ulcer, may

manarum ter in annua, semel mense 18, semel in bimula, bis in sexenni, semel in decenni, semel in 14 annorum puella, semel in alia 17 annorum, semel in vetula." (*Elementa Physiologiæ*, tome vii. pars 2, pp. 95 and 97.) Some satirical remarks by Michælis on the German anatomists finding this membrane, and the French denying its existence, may be found in his *Commentaries*, vol. i. p. 482. He quotes also the opinion of Roederer and Wrisberg in favor of its presence, and also of its being a sign of virginity.

* See, on this point, Godman's *Anatomical Investigations*, p. 72, etc.; Lawrence's *Lectures on Physiology*, London edition, p. 174; *Edinburgh Medical and Surgical Journal*, vol. liv. p. 506; Virey on the True Nature of Hymen.

† Foderé, vol. iv. p. 339. In a report by L. Senn, of La Maternité, at Paris, on the condition of the genital organs at birth, he states that in examining between three and four hundred children from two to four years of age, he did not fail in a single instance to find the hymen. (*Dewees' Midwifery*, third edition, p. 48.)

"Nous ajouterons que tous les anatomistes modernes ne mettent plus en doute l'existence de l'hymen." (*Devergie*, vol. i. p. 340.)

‡ Or as the following case of a young woman admitted into St. Thomas' Hospital, in July, 1828, under the care of Dr. Elliotson. She stated that, about six months previous, she was lifting a person out of a coach, when she suddenly felt intense pain in the back, and the uterus descended and

totally obliterate it. There have certainly occurred instances where the pressure of the confined menstrual fluid has produced its destruction. Again, in the place of the hymen are sometimes found the *carunculæ myrtiformes*. Tolberg, according to Foderé, and also Belloc, have made this observation on dissection. They were, however, round, and without a cicatrix, and in this respect very distinct from the organs usually so termed.* *This membrane may, on the other hand, be present, and yet the female be unchaste; nay, she may become pregnant without having it destroyed.* Gavard, whom I have already mentioned, found it perfect in a female of thirteen years of age, who was laboring under the venereal.†

In cases where this membrane is found thickened, or abnormally rigid, an operation has often been necessary. A case happened to Ruysch, of a female during labor, in whom he had not only to divide the hymen, but also another non-natural membrane placed farther back. Immediately after the operation, the child was born.‡ Baudelocque, Mauriceau, Denman, Meigs, and other writers on midwifery, adduce many instances illustrating the same fact.§

protruded beyond the os externum. The descent was accompanied by profuse hemorrhage. She recovered and was married, and now came in for prolapsus uteri. She declared that, before her marriage, she was intact; and Dr. Elliotson remarked on this, that a lesion of the hymen may result from *internal*, as well as from *external* causes. (Lancet, N. S., vol. ii. p. 734.)

* Foderé, vol. iv. p. 343; Belloc, p. 45.

† Foderé, vol. iv. p. 340. Ricord, surgeon to the Venereal Hospital at Paris, mentions a similar case. (Monthly Journal Medico-Chirurgical Knowledge, No. 2, p. 37.)

‡ Foderé, vol. iv. p. 340; see also vol. i. pp. 389, 390, for similar and even more extraordinary cases.

§ Capuron states that, a few years ago, he divided this membrane in a female during labor, and in a short period she was delivered of living twins. (p. 32.)

The following extract from so experienced a practitioner as Baudelocque, has some incidental interest: "It is well known that the hymen is not always torn in the first connection, and that it has been found entire in some women at the time of labor. I can myself adduce two examples." The first was in a young lady, who assured him that she had merely permitted the semen to be shed on the interior parts of the vulva, and did not allow

These observations certainly lead us to doubt whether the presence or absence of the hymen deserves much attention; and I believe the opinion of physiologists generally is, that it is an extremely equivocal sign. I am, however, unwilling to go as far as most of the later writers on legal medicine, who virtually reject it altogether. While it must be allowed that it can very often be destroyed by causes which do not impair the chastity of the female, we are justified, I think, in attaching considerable importance to its presence.* I feel therefore

the complete act. Here the hymen bound the vagina very closely, and left but a very small opening. She, notwithstanding, became pregnant, and the parts were found thus at labor. In the other, the membrane alone resisted, for half an hour, all the efforts of the last periods of delivery. (Midwifery, vol. i. p. 217.)

Additional cases are recorded by Mr. Brennard, London Medical Repository, vol. xxi. p. 398; by Mr. Streeter, Lancet, N. S., vol. xxiii. p. 356; by Dr. Mackinlay, *ibid.*, vol. xxvii. p. 847; by Dr. West, *ibid.*, vol. xxviii. p. 188; by Mr. Arnott, *ibid.*, vol. xxx. p. 234, (not pregnant.)

By Dr. Blundell, an eminent lecturer on midwifery in London. "Four impregnations," says he, "in which the hymen remained unbroken, have fallen under my notice; the diameter of the vaginal orifice not exceeding that of the smaller finger, and this too, though the male organ was of ordinary dimensions." And again, "I know of three cases in which the male organ was not suffered to enter the vagina at all, and where, nevertheless, I suppose from the mere deposition of the semen upon the vulva, impregnation took place." (See his Lectures in the Lancet, N. S., vol. iii. pp. 259, 260; vol. iv. p. 708.)

By Dr. Davis, particularly a case of cribriform hymen, Obstetric Medicine, pp. 104, 105, 110; by Dr. Kennedy, p. 31.

By Dr. Montgomery, Cyclopedia of Practical Medicine, vol. iii. p. 495, art. *Pregnancy*. He quotes two cases, which deserve mention at least in this place. One is from Marc, (art. *Violation*, in the Dictionnaire des Sciences Medicales.) A young female, severely afflicted with syphilis, was brought to La Pitié. The hymen was altogether wanting; the vagina greatly dilated, and the external genitals diseased. She was cured; and to the astonishment of the medical observers, a well-formed semilunar hymen was found. The other is from Nysten. A young girl, aged 13, had ovarian pregnancy, but had never menstruated; the vagina was much contracted, and the hymen was perfect!

* Smith, p. 397. A case is, however, given in East's Crown Law, (vol. i. p. 438.) where two surgeons swore that the hymen was entire. "But as this membrane was admitted to be in some subjects an inch, in others an inch and a half, beyond the orifice of the vagina, Ashurst, J., left it to the jury,

justified in retaining it among the signs of virginity, although it should always be considered in connection with other physical proofs.*

2. *Narrowness of the vagina.* In children this part is extremely small; but it increases in size as they approach to the age of puberty. At that period, the development produced by the determination of blood to the sexual organs causes a turgescence and enlargement, which naturally place the parts in closer contact. In chaste females, also, rugæ are observed on the inner surface of the vagina; and these are removed by frequent connections, and destroyed by one or two deliveries.

But we cannot place much reliance on this as a sign. It is evident that it must vary with the age of the individual, the temperament and the state of the health. In those of a sanguine habit, the parts will be most contracted, while on the other hand, if fluor albus or menorrhagia be present, there will be great dilatation. Parent-Duchatelet informs us, as the result of actual inspection, that the genital organs of many prostitutes, some indeed of advanced years, cannot

whether any penetration was proved; for if there were any, however small, the rape was complete in law. The jury found the prisoner guilty." In this case, the female was ten years of age, and the parts were stated to be so narrow that a finger could not be introduced. On the trial of Gammon, for a rape on a child under ten years of age, Mr. Woollett, a surgeon, stated that he found considerable local inflammation about the parts of the child; that the hymen had been recently ruptured, and that he had no doubt that penetration had taken place. Baron Gurney, who presided, observed: "I think, that if the hymen is not ruptured, there is not a sufficient penetration to constitute this offence. I know that there have been cases in which a less degree of penetration has been held to be sufficient, but I have always doubted the authority of these cases; and I have always thought, and still think, that if there is not a sufficient penetration to rupture the hymen, it is not a sufficient penetration to constitute this offence." (5 Carrington and Payne's Reports, p. 321, *Rex v. Gammon*.)

* "In examining for the hymen in cases of rape, or for purposes of professional opinion or treatment in many other cases, it will be necessary to separate the labia, and even the thighs, to a considerable distance from each other, before the hymen, in the event of its being present, can be distinctly seen." (Davis' Obst. Med. p. 99.)

be distinguished from those of the virgin state. And the inference drawn is "that degrees of amplitude and straitness of the vagina are, to many women, a natural and congenital state."

3. I have already mentioned, that in the place of the hymen, certain fleshy tubercles, termed *carunculæ myrtiformes*, have been observed by anatomists; and shall now add that a variety in their appearance has been considered indicative of chastity or unchastity. Zacchias remarks, that in the former they are red, tumid, and connected together by fleshy cords; but in married women (being situate at the entrance of the vagina) they are found pale, flaccid, and the cords torn asunder.* They are generally considered as the remains of the hymen, "*et corruptæ adeo pudicitix indicia.*" They are then found thick, red, and obtuse at their extremities, somewhat resembling a myrtle-berry; and from this supposition their name is derived. They generally disappear after frequent connection or deliveries.

It has, however, of late years been asserted, with positiveness, that the *carunculæ* and the hymen may be coexistent. Of this opinion are Dr. Hamilton, of Edinburgh, Dr. Blundell, and Dr. Conquest; all, as it would seem, from actual observation.†

* Zacchias, vol. i. p. 378.

† Ramsbotham's Lectures, in London Med. Gazette, vol. xiii. p. 192; Blundell's Lectures, in Lancet, N. S., vol. iv. p. 641; Conquest's Outlines, p. 17; Merat (Dict. des Sciences Med., vol. xxxv. p. 143) is of the same opinion. Orfila, however, states that in more than two hundred dissections made by him of females from two to fourteen years of age, and in whom, of course, the hymen was present, he could not detect the presence of the *carunculæ*.

Velpeau says that the difference of opinion that exists may be settled by what he deems his own discovery: "Four *carunculæ* are commonly observed at the entrance of the vulvo-uterine canal, and which correspond to the four extremities of the respective diameters of this opening. Two of these, viz., that which is near the meatus, and that which is near the fourchette, belong to the middle columns of the vagina, while the other two only are the remains of the hymen. They may thus coexist." He calls these last *lateral caruncles*. (Midwifery, p. 55.)

Devilliers, junior, in his "New Researches on the *Hymen* and *Carunculæ*,"

In addition to the above, various signs have been enumerated by authors. These I will barely state, and refer the inquirer for more minute details to works on anatomy and midwifery. Pain during the first connection is deemed a proof, although the presence of menstruation or of disease may prevent this in many cases; so also blood from the rupture of the hymen.* The red and tumid appearance of the labia and nymphæ, and the rupture of the fourchette, are each extremely uncertain signs, since the latter does not generally occur until delivery, and the former may be present in the unchaste.

It should be observed, with respect to the signs last enumerated, that although they may be present notwithstanding the unchastity of the female, yet their absence is a proof against her. If the labia and nymphæ have the appearance which indicates previous connection; if the fourchette be ruptured, and the fossa navicularis obliterated, the only deduction we can draw must be an unfavorable one. Capuron, a disbeliever in the physical signs, indeed suggested that a foreign body, such as a pessary, introduced with too much violence into the vagina, may have ruptured the fourchette; or the menstrual fluid, by becoming acrimonious, may have eroded it.† Both these suggestions are, however, equally improbable, and deserve little attention in forming a general rule.

Systematic writers have added to these, other signs, but they are generally equivocal. The bright-red color of the nipples, the hardness of the breasts, and, in fine, the general appearance of the female, all deserve attention, but can seldom be of any practical utility in determining on the point under examination.

From the above statement, an opinion may be formed con-

Paris, 1840, states as the result of his investigations, that the carunculæ, strictly so called, are the line representing its previous insertion. (*Annales d'Hygiène*, vol. xxv. p. 475.)

* This is indicated in the Jewish law. The curious will find some extraordinary discussions on this point in Zacchias, vol. i. p. 376, and Michælis, vol. iv. pp. 192 to 199.

† Capuron, p. 29.

cerning the dependence that is to be placed on the physical signs of virginity. It is not to be denied, that many may be equivocal; but, notwithstanding, it is the duty of the medical examiner to notice them, and that *in connection with one another*. It cannot be possible that all those which we have mentioned as present during the chaste state, can be wanting, without justifying a strong suspicion against the female. It is also necessary to recollect that these appearances are most striking in females of tender age; and, as a general rule, guided, however, by the climate and the habit of the body, they are found most perfect in females not farther advanced in life than twenty or twenty-five years of age.*

II. *Of the signs of defloration and rape.*

The marks of defloration, *i.e.* of connection without violence, are of course the reverse of those which we have stated in the preceding section. It is not necessary to recapitulate them in this place; but it is proper to observe, that they will most readily be seen if the examination be made within a very short period after the event complained of; and again, the most striking proofs will occur where it has been the first connection on the part of the female. Here the parts are generally found bloody, inflamed, and painful.†

Marks of a rupture of the hymen, or a disunion of the carun-

* The following remark of Foderé on this subject deserves quotation: "Having often been engaged in such examinations, and finding the above-named physical signs of virginity wanting, I have declared the female unchaste; and the pangs of child-birth have in a few months confirmed my decisions, although they were considered harsh at the time." (Vol. iv. p. 352.) We must, however, add, that the faculty of medicine at Leipsic declared that there does not exist any true and certain sign of virginity, (Metzger—notes, p. 483;) and Morgagni is of a similar opinion. (Opuscula Miscellanea, p. 37.)

† It is important not to mistake the menstrual secretion, or blood placed on the parts, for the effects of violence. Dr. Campbell, of Edinburgh, detected a case of pretended rape, by finding a stocking wire, covered with blood in a dried state, which had been applied to the vagina. (Midwifery, p. 53.)

culæ, may also be present, together with an extreme sensibility to the touch, a sensation of heat, and a difficulty in walking. In married women, or libidinous females, the detection is more difficult, and, in truth, in a great degree impossible, and that whether they accuse or are accused. The reasons for this will readily suggest themselves.

By the term *rape*, however, is understood not only defloration, but a commission of it either against or without the will of the female; and again, the commission of this violence against a person of a tender age, who has, as yet, in the legal sense of the term, no will. Here, not only the signs of defloration already enumerated may be present, but also others indicative of the employment of force, such as contusions on various parts of the extremities and body. These, however, are compatible with final consent on the part of the female.

It also deserves attention, that disease has produced the appearance of external injury, and led to suspicions against innocent persons. Dr. Percival relates a case of serious importance in medico-legal investigations. Jane Hampson, aged four, was admitted an out-patient of the Manchester Infirmary, February 11, 1791. The female organs were highly inflamed, sore, and painful; and it was stated by the mother, that the child had been as well as usual, till the preceding day, when she complained of pain in making water. This induced the mother to examine the parts affected, when she was surprised to find the appearances above described. The child had slept two or three nights in the same bed with a boy fourteen years old, and had complained of being very much hurt by him during the night. Leeches and other external applications, together with appropriate internal remedies, were prescribed; but the debility increased, and on the 20th of February the child died. The coroner's inquest was taken; previous to which, the body was inspected, and the abdominal and thoracic viscera found free of disease. From these circumstances, Mr. Ward, the surgeon attending this case, was induced to give it as his opinion that the child's death was caused by external violence; and a verdict of murder was accordingly

returned against the boy with whom she had slept. Not many weeks elapsed, however, before several similar cases occurred, in which there was no reason to suspect that external violence had been offered, and some in which it was absolutely certain that no such injury could have taken place. A few of these patients died. Mr. Ward was now convinced that he was under a mistake in attributing the death of Jane Hampson to external violence, and informed the coroner of the reasons which induced this change of opinion. Accordingly, when the boy was called to the bar at Lancaster, the judge informed the jury that the evidence adduced was not sufficient to convict; and that it would give rise to much indelicate discussion, if they proceeded to the trial; and that he hoped, therefore, they would acquit him, without calling witnesses. With this request the jury immediately complied. The disorder in these cases, says Dr. Percival, had been a typhus fever, accompanied with a mortification of the pudenda.*

A complaint, resembling the above in many respects, has also been described by Mr. Kinder Wood. It is preceded by all the ordinary symptoms of fever for about three days. The patients then call the attention of parents to the seat of the disease, by complaints in voiding urine, etc. When the genital organs are examined, one or both labia are found enlarged and inflamed. The inflammation is of a dark tint, and soon extends internally over the clitoris, nymphæ, and hymen. Ulcer-

* Medical Ethics, pp. 103 and 231. Capuron relates two cases of children, the one aged four and the other six years, both of whom were affected with a white and very acrid discharge from the vagina, accompanied with swelling of the external parts, severe pain, and indeed ulceration: a high fever was also present. In one instance, the parents loudly declared that violence must have been used toward their child. Professor Capuron, however, ascribed both to an epidemic catarrhal affection then prevalent in Paris, and considered the local complaint as entirely dependent on it. By the use of proper regimen, they readily recovered. (Pages 41 and 42.)

"Judging from my own experience in a large town, cases like those related by Capuron are by no means unfrequent. I have met with at least a dozen during the last five or six years, principally in children four or five years of age. They have been various in the severity of the symptoms, and in their duration, but have always terminated favorably." (DARWALL.)

ation succeeds, and the external organs of generation are progressively destroyed. This affection has proved very fatal, and seems to constitute a peculiar kind of eruptive fever.*

Mr. William Lawrence, in his Lectures on Surgery, when speaking of this disease, mentioned that he had been called as a witness in such a case at the Old Bailey, on a capital indictment. The idea was that the complaint was syphilis. He remarks, that "there is an excessively deep-colored inflammation, with great disturbance of the health of the child, in the very commencement of the affection; and the ulceration that succeeds is foul and sloughing, and of a tawny color, totally different from the character of any primary venereal sore."†

* Medico-Chirurgical Transactions, vol. vii. p. 84. Out of twelve cases seen by Mr. Wood, only two appear to have recovered. See also Quarterly Journal of Foreign Medicine, vol. ii. p. 223; Lancet, N. S., vol. i. p. 874; American Journal of Med. Sciences, vol. ii. p. 468; North of England Medical and Surgical Journal, vol. i. p. 479. (Cases by Mr. Dunn, of mumps combined with leucorrhœal discharge.) Sir Astley Cooper says that he has seen at least thirty cases of this discharge in one year. (London Medical and Surgical Journal, vol. iv. p. 48.) Additional cases are mentioned by Dr. Beatty, as occurring in Dublin, and where charges of rape were about to be made. (Cyclopedia of Practical Medicine, art. *Rape*.) Also by Dupuytren, Medico-Chirurgical Review, vol. xxv. p. 524; North American Archives, vol. i. p. 201.

This disease is noticed by Dr. Churchill (Diseases of Females, p. 8,) under the names of *Infantile Leucorrhœa*, or inflammation of the mucous membrane of the vulva. See also British and Foreign Med. Review, vol. vii. p. 473. There is every probability that this disease may cause closure of the vagina, (atresia,) of which we have given cases. See Instances in Children, by Dr. J. C. Nott, of Mobile. (American Journal Med. Sciences, N. S., vol. v. p. 246.)

[Vide a paper, entitled "History of the recent epidemic of infantile leucorrhœa, with an account of five cases of alleged felonious assaults recently tried in Dublin," by Mr. Wilde, in Med. Times and Gazette, September, 1853; also an article by Mr. Kesteven, in Med. Gazette, February, 1851. For summary of facts and observations contained in these papers, see Med. Jurisprudence, by Wharton and Stillé, p. 331 et seq.—A. F.]

† London Medical Gazette, vol. vi. p. 828. A similar case occurred in London, in 1829, where the prisoner was convicted of an assault, and sentenced to six months' imprisonment. Dr. Gordon Smith and others interested themselves in the man's behalf, and showed that it was disease, instead of the result of violence. (London Medical and Surgical Journal, vol. iv. p. 48.)

On the other hand, the following case, related by Dr. Bullen, of Cork, will show how consequences precisely similar may originate from violence: A servant-girl, seventeen years of age, obtained permission to go to the races. She danced a good deal, drank freely of porter, and becoming confused and giddy, was laid down in a tent to sleep. While in this situation, she was awoken by several persons violating her in succession. She became insensible, and was unable to tell how often this had been effected, but when examined the next day at the Infirmary, the genitals were found bloody, inflamed, and painful; there were marks of a recently ruptured hymen; the fourchette was torn, and a deep, dusky inflammation affected the labia, nymphæ, and perinæum; a bright erythematic inflammation was diffused over the groins, down the thighs, and up the abdomen. She was placed in bed; bled, freely purged, and cold wash applied to the parts; but, in spite of the most active treatment, ulceration rapidly succeeded, and the clitoris, nymphæ, perinæum, labia, and mons veneris sloughed away, leaving the pubis exposed. After a long and painful struggle, this great ulcer cicatrized, and she left the hospital with only a small orifice preserved by keeping in a bougie, to give transmission to the menses. At no period during the progress of the case could Dr. Bullen recognize symptoms of syphilis, and he expressly states that the aspect of the ulcer and the appearance of the inflammation were very similar to what occurs in that mortification of the pudenda which takes place in eruptive fevers of a peculiar description, as noticed by the above authors.*

It is hence of great importance that the physician understand the possibility of such diseases occurring, but we must at the same time "take care not to run into the opposite error of ascribing inflammation, ulceration, and discharge in cases where violence has been alleged, to this disease, without sufficient grounds; *for it is extremely improbable that diseases which occur so rarely, should happen to appear in a child to*

* Dublin Med. Press, March 25, 1840.

whom violence was offered, unless that violence had some effect in producing it."* The proper distinction to be made in these cases undoubtedly is, not to attribute laceration, tumefaction, and consequent inflammation to this disease. The examination of the person suspected, if early made, will lead to a definitive opinion.† Marks of external injury are hence to be considered as *corroborating* but not as *certain* proofs of the commission of a rape. The weight which they deserve depends on several circumstances which it is proper to notice.

1. *The age, strength, and state of mind of the respective parties.* Though we may doubt whether a rape can be committed on a grown female, in good health and strength, (and this point I shall presently notice,) yet there can be no ques-

* Edinburgh Medical and Surgical Journal, vol. xiii. p. 491. "Circumstances, however, sometimes occur to render the diagnosis of this point extremely perplexing. We recollect a case of this sort where two sisters, the one six, the other four years old, were affected with this discharge, and where the extreme youth of the culprit would have led to the same conclusion, had not the discovery of well-marked phymosis placed the matter beyond doubt." (British and Foreign Medical Review, vol. vi. p. 87.)

There is a shocking case of rape on an infant eleven months old, related in London Medical Gazette, vol. xxvi. p. 159. It occurred in Ireland, and death followed in twenty-four hours. The vagina was found torn from the uterus.

† Beatty, in Cyclopedia of Practical Medicine, art. *Rape*.

In cases of young children supposed to have been violated, it will be well to remember an observation made by Devergie and verified in repeated examinations of healthy subjects. And this is, that at a tender age the labia are at a much greater distance from each other at the upper part, than in more advanced years. The opening was in repeated instances found to be triangular, and to expose the clitoris. (Devergie, vol. i. p. 338.)

"Il est vrai que l'acte du coit est rarement entierement consommé chez les tres-jeunes enfans; nous avons vu dans plusieurs circonstances, des jeunes filles ayant été pendant assez long temps en but à des tentatives de viol, presenter le perinée en entonnoir refoulé en—dedans, c'est à dire, rentrant vers le vagin, son orifice un peu enlargi et écarté en bas." (Leuret, in Annales d'Hygiène, vol. xvi. p. 446.)

[The local symptoms distinguishing the chronic vaginitis, not uncommon in children, from gonorrhœa on the one hand, and on the other hand, the effects of violence, claim careful consideration in this connection. The medical reader should consult West on the diseases of children, and other works treating of the subject.—A. F.]

tion but that it can be perpetrated on children of a tender age. Previous to the age of sixteen, or rather before the period of menstruation, the female is not only deficient in strength, but is also ignorant of the consequences of the act; and fear may induce her to consent to libidinous desires. Again, should a female accuse a man who is cachectic or a valetudinarian, little credit is to be given to her charges; as the respective strength of the parties will show the improbability of the commission of the act. For a similar reason, the probability is increased when the accused is vigorous, and the accuser infirm; and, above all, should the female labor under imbecility of mind to such a degree as to render her incapable of judging concerning the morality of her actions, her age ought not to be taken into account. An individual of this description at twenty-five, is less capable of resistance than another of sound mind and body at fourteen. We must also add, that all accusations against persons above sixty years of age should, as a general rule, be rejected; and if maintained, the accuser should prove presence of greater strength and virility than is the ordinary lot of that period of life.*

2. A comparison of the sexual organs may be necessary; since cases have occurred in which the male has proved impotency or defective organization, or has exhibited proofs of the destruction of parts by the venereal disease. In the female, however, it must be remembered, that it will be difficult to find the physical marks of rape, provided she is subject to the diseases formerly enumerated, or has had several children. In opposite cases, severe marks of the violence will be more evident; and these have sometimes been of the most striking kind, inducing, in one instance, according to Teichmeyer, great inflammation, and an incurable paralysis of the lower extremities.†

* I have known, says Professor Amos, a person aged 60, left for execution for a rape; and in 1803 a youth, aged 17, was convicted of it on a girl of nine, and executed. (London Medical Gazette, vol. viii. p. 33.)

† MS. Notes of Stringham's Lectures.

3. A speedy examination of the parts is all-important in disputed cases. The body of the male should also be inspected, whether there be scratches or bruises on it.*

I have intimated, that doubts exist whether a rape can be consummated on a grown female in good health and strength. It has been anxiously inquired, whether this violence, if properly resisted, (and this is included in the very definition of rape,) can be completed? And in the consideration of this, it is needless to observe that those cases in which insensibility, by violence or soporifics, has been previously produced, or where many are engaged against one female, are of course excluded.† Some hesitation is doubtless proper in deciding on a question of this magnitude. The opinion of medical jurists generally is very decisive against it. "An attempt," says Farr, "under which is to be understood, a great force exercised over a woman to violate her chastity, but where a complete coition is prevented, may be possible. But the *consummation* of a rape, by which is meant a complete, full, and entire coition, which is made without any consent or permission of the woman, seems to be impossible, unless some very extraordinary circumstances occur. For a woman always possesses sufficient power, by drawing back her limbs, and by the force of her hands, to prevent the insertion of the penis, while she can keep her resolution entire."‡ "Independam-

* "The great points to be looked to," says Mr. Alison, "are—1. Whether they made resistance, and cried out, *before* they were discovered. 2. Whether they had received *blows and actual injury*, it being quite certain, that at least that violence was inflicted against the will." (Principles of the Criminal Law of Scotland, p. 187.)

The difference between an assault with intent to commit a rape and an assault with intent to have an improper connection, is taken very distinctly by Judge Coleridge, in *Regina v. Stanton*, 1 Carrington and Kirwan's Reports, p. 415.

† We must, however, remember, that the administration of soporific drugs, for the purpose of the commission of the crime, will justify the charge of rape. This was the case of Luke Dillon, at Dublin, 1830, who was convicted, and exchanged execution for transportation, only at the earnest solicitation of the female and her relations. (Alison, p. 213.)

‡ Farr, pp. 41 and 42.

ment de l'arme que la loi met dans la main de la femme pour repousser l'injure, elle a infiniment plus de moyens pour se defendre que l'homme n'en a pour attaquer, ne fut ce que le mouvement continuel." And again, "J'estime qu'une personne du sexe, qui a atteint l'age de dix-huit à vingt ans, ne peut plus etre prise par force par un homme seul, quel qu'il soit, à moins de la menace d'une arme meurtriere, et que le crainte de la mort ne soit plus forte que celle de perdre l'honneur."* Metzger only allows of three cases in which the crime can be consummated—where narcotics have been administered, where many are engaged against the female, and where a strong man attacks one who has not arrived to the age of puberty.†

Notwithstanding these united authorities, it may with justice be supposed, that in addition to the cases allowed, fear or terror may operate on a helpless female—she may resist for a long time, and then faint from fatigue, or the dread of instant murder may lead to the abandonment of active resistance.‡

* Foderé, vol. iv. pp. 359, 360. Capuron advances the same opinion, p. 54; and Brendelius, p. 96.

† Metzger, p. 255. I must add to the above, the following answer given by the medical faculty of Leipsic to the question, whether a single man could ravish a woman. "Si circumstantias quæ in actu coeundi concurrunt, consideramus, non credibile, nec possibile videtur, quod unus masculus nubilem virginem (excipe impubem teneram, delicatam, aut simul ebriam puellam) absque ipsius consensu, permissione, atque voluntate vitare, aut violento modo stuprare possit; dum fœmina cuilibet facilius est, si velit, penis immissionem recusare, vel multis aliis impedire, quam viro eidem in vitæ planè intrudent." (Valentini Pandectæ, vol. i. p. 61.)

‡ I am aware, that in the previous edition I spoke too strongly and exclusively, and I fully recognize the correctness of Dr. Ryan's criticism. (Midwifery, p. 157.) In a trial at Edinburgh, in 1828, where the counsel for the prisoner did me the honor to quote this work, and the opinion now under consideration, the Lord Justice Clerk, in his charge to the jury, in reply to the argument, that there could be no rape without assistance, blows, or drugs, showed that a case had occurred in 1811, "where the woman swore that she was overcome on the sands, there being no others near. There was no proof of blows, but her evidence was confirmed by persons

Cases in which false accusations of rape have been made against individuals, are scattered through most of the works on medical jurisprudence.* I shall quote one, both from its having happened not long since, and also as it shows the course pursued in such instances in France. A female at Martigues, in 1808 accused eight or ten of the principal persons in the place, of having violated her granddaughter, aged about nine years and a half, at an inn. She laid her complaint before the justice, (*juge de paix*;) but stated that she would withdraw it, provided the accused would accommodate the matter with her. She had procured a daughter of the innkeeper, aged sixteen, and an idiot, as a witness. As the charge was obstinately persisted in, Foderé, with two officers of health, was ordered to examine the child in the presence of the judge; and suspicion was immediately excited, from the delay used in admitting the visitors. On examining the parts, he found the hymen untouched, and the

who had been looking in that direction with a spy-glass, and the man suffered the last punishment of the law." (Syme's *Justiciary Reports*, p. 332.)

Dr. A. T. Thomson, in his *Lectures* recently published, (*London Medical and Surgical Journal*, vol. vi. p. 647, and *Lancet*, N. S., vol. xix. p. 449,) agrees in the main with the authors that I have quoted. He suggests, that in this struggle "with a healthy female of adult age, who is really anxious to preserve her chastity unsullied, the mind of the man must necessarily be so much abstracted from the act itself, in overcoming the resistance offered to him, and in repelling the attacks of the female upon him, that, independent of corporeal exhaustion, the state of his mind will render it utterly impossible for him ever to effect that penetration which constitutes the criminal intent."

[An instance of complete accomplishment of coitus, in the case of an adult female, notwithstanding her resistance, according to the woman's narrative, which bears strong internal evidence of credibility, is given in Wharton and Stillé, p. 335.—A. F.]

* See the case of one *Stephen Nocetti*, which was referred to Zacchias, and where there was an actual deficiency of parts. The accusation was made four months after the supposed commission of the crime, (*Consilia*, No. 34, vol. iii. p. 62;) also the case of *Erminio*, (*Consilia*, No. 41, vol. iii. p. 74.) Foderé also quotes a case from *Deveaux*, where there was nothing but a slight excoriation of the parts; and of course it was decided that there were no evidences of a rape having been committed. (Vol. iv. p. 371) I will only add a caution, not to mistake menstruation for the effects of defloration.

vagina extremely narrow. Around the pudenda, however, a red circle, about the size of a crown, was observed, which appeared to have been induced recently; and this was indeed the fact, for at the end of half an hour the circle had decreased in size, and the redness disappeared. Had this been the effect of great violence, it is natural to suppose that it would have increased in intensity of color. A report was prepared, stating the above facts; and the consequence was, that the accuser was put in prison, and finally ordered out of the city.*

"It happened, at an early period of the author's life, in a Welsh country town, that a child of about eight years of age, of low connections and mendacious habits, was induced to prefer against a respectable minister of religion an accusation of an attempt to violate her person. It was averred on the part of her friends, that she became the subject of ulcerations of the pudendum, in consequence of the imputed assault, and the gentleman in question was committed to prison and confined there for several weeks. The grand jury ignored the bill on the ground that the prisoner had proved himself free from the disease which he had been accused of communicating, and also from other and conclusive moral and circumstantial evidence. The ulcerations on the child's pudendum were proved not to have been derived from a venereal source."†

* Foderé, vol. ii. p. 456; and vol. iv. p. 371. The distinction made in Deuteronomy, chapter xxii., between the commission of the crime *in the city* or *in the field*, deserves attention in the consideration of this point.

† Davis' Obstetric Medicine, p. 78. Mr. Robertson, of Manchester, mentions a curious case of a female found in a field near Warrington, apparently dying in consequence of a rape, as she said, committed on her by two ruffians. Mr. Robertson found her in a paroxysm of hysteria. She complained of severe pain in various parts of her body, but excused herself, on account of exhaustion, from an examination. Two men were arrested on suspicion, and on being confronted, she immediately identified one as the violator, and he was sent to jail. On further inquiry, however, the injury on the body was found to be slight, while on the inner surface of the pudenda were simply two slight wounds, such as might have been inflicted by the fingernail. The investigation ended in proving her, on her own confession, to be

Instances sometimes occur, in which death has followed the consummation of a rape, from the violence employed. Here, if the physician be called on to examine the body, he should particularly notice the condition of the sexual organs, both internal and external; and also ascertain whether proofs are present from which the exertion of violence may be presumed, such as the introduction of substances into the mouth to prevent crying out, contusions, or dislocation or fracture of the extremities. He should notice whether the labia are dilated and flaccid, the state of the hymen, clitoris, nymphæ, and vagina generally, and also whether the fourchette is ruptured. The fluid (if any be present) contained in the vagina should be examined, whether sanguineous, mucous, or purulent, and the presence or absence of tumefaction and extraordinary dilatation, should be marked.*

The case of Mary Ashford, which occurred in England in 1817, is deserving of mention in this place. She was at a ball with the individual (Abraham Thornton) who was accused of first violating and then murdering her. It appears from

an impostor, who pretended these injuries, and also admirably imitated the paroxysms of hysteria, for the sake of exciting charity. Whenever she was hard pressed with unpleasant questions, a fit of hysteria came to her relief.

She was tried and punished as an impostor, but succeeded for years afterwards in imposing on individuals. Another of her devices, was suddenly to fall down in labor. (London Medical Gazette, vol. xv. p. 506.)

A similar case of feigned rape is quoted by Wharton and Stillé, from Lond. and Ed. Monthly Journal, December, 1853, taken from Gaz. des Hôpitaux. See also note appended to this chapter.

* Foderé, vol. iv. p. 372. There are two cases to which I may particularly refer, as showing the appearance of the uterus and the other internal organs of generation, such as the Fallopian tubes and ovaries, immediately after defloration—*followed probably by conception*. One is by Dr. Bond, (American Journal Med. Sciences, vol. xiii. p. 403,) of a female who committed suicide a few hours after connection. And the other, by Dr. Riecke, of another who destroyed herself two days after, (London and Edinburgh Monthly Journal Med. Science, vol. ii. p. 58.) In each, the above parts were in a highly red, and injected state.

[The fluid contained in the vagina should be subjected to microscopical examination, with reference to the presence of *spermatozoids*. This point is subsequently referred to.—A. F.]

his confession, that she made an assignation with him. They were seen together in the night, and the next day her dead body was found in a pit of water.

She had on a pair of white stockings at the ball. On her return she changed them for black ones. The white ones were found bloody, in the bundle that she had made up before leaving the house. It was hence probable that she had the menses on her, and this was subsequently confirmed. At the place where the connection took place, coagulated blood was observed. (There was an evident impression of a human figure on the grass, and this was in the middle of the impression.) Thornton's shirt and the flap of his pantaloons were bloody. Indeed, he confessed the connection, but said it was with her consent. Mr. Freer, the surgeon who examined the body, found the parts of generation lacerated, and a quantity of coagulated blood about them. On opening the body, these marks were seen still more manifest, and it was also evident that the menses had been present. In the stomach, he found a portion of duck-weed, and about half a pint of a thin fluid, apparently chiefly water. The lacerations (two in number) were quite fresh, and he had no hesitation in asserting that she was pure until these occurred. He also stated the distinction between menstrual and non-menstrual blood, and explained that what was observed could not be the former, in consequence of its coagulation. The lacerations might, he said, have occurred with or without consent on the part of the female.

Thornton escaped conviction by an abili.* There was a con-

* Barnewell and Alderson, p. 405, *Ashford v. Thornton*. This case in all its details is given by Dr. Cummin, in the *London Med. Gazette*, vol. xix. p. 386. It excited intense interest in England.

Mr. Holroyd (son of the judge who tried Thornton) suggested in a pamphlet which he published, that her death may have been accidental. Fatigued and exhausted, as she undoubtedly was, she passed before morning along the top of a bank of a very sloping pit-side, and she may have turned faint or giddy, and thus fallen in. Dr. Cummin does not think that there was either rape or murder. (*Ibid.*, p. 390.)

This case was the *last* in which the trial by battle was tendered. It is

siderable difference as to the time of the clocks and watches, and they had not been sufficiently compared. "Less than an hour of additional time," says Professor Amos, "would have put an end to the alibi."

It may be considered an omission not to notice the chemical investigations of Orfila, for the detection of semen, if its presence should require to be proved, and I therefore add a brief notice of them.

Semen forms, when dry on linen, irregular spots of a light-yellow or grayish color; but so indistinct, that frequently it is necessary to hold them between the eye and the light to discover their presence. On pressing them with the fingers, the linen appears as if starched. When dry, they are inodorous; but as soon as they are moistened the spermatic odor is given out. If the linen be gently heated, they assume a yellow-fawn color, and this, indeed, will indicate spots, which otherwise would pass unnoticed. This property is important in distinguishing the discharge. And it is also found, if the linen be left for some time in distilled water, that the above result will not be reproduced on heating it. The semen has become mixed with the water—and no change of color is occasioned.

In water, the spots become completely moistened, which is not the case if they have been caused by grease, and on being rubbed, give out their peculiar odor. The fluid itself is of a flocculent, milky appearance, and, on being evaporated, is found alkaline, and assumes a mucilaginous appearance; and if the process be continued to dryness, it leaves a semi-transparent residue, resembling gum-arabic, and of a light-fawn

generally understood that Thornton, borne down by the odium resting on him, came to this country, and shortly after died, near Baltimore. I find it, however, stated in the *Gazette des Tribunaux*, October 14, 1845, that in 1820 Lord Ellenborough received a letter, signed by William Ashford, the brother, and dated at a town in California, stating that he had followed the murderer to America, and killed him, and that the Indians had buried his body on the road from Mexico to Vera Cruz. Ashford added, that he was in his last moments, and would be dead before the letter could reach its destination.

color. This again is decomposable in distilled water, if the mixture be shaken, into two parts; one soluble, but the other glutinous, insoluble in water, but soluble in potash. The soluble portion yields a white flocculent precipitate with alcohol, chlorine, acetate of lead, or corrosive sublimate. Pure nitric acid gives it a slight yellowish tint, *but does not render it turbid.*

Alcohol dissolves but a very trifling portion, if the linen, spotted as above, be left in it for twenty-four hours.

When blenorragic matter, obtained from syphilitic females, was treated in a similar manner, the linen took a yellowish-green color, but the spots do not become yellow when held to the fire. The peculiar odor is wanting, but the solution is also alkaline. When evaporated, the product is of a white yellowish color, opaque, and decomposable by heat. It dissolves with difficulty in distilled water, but alcohol and the other re-agents already named, yield a white precipitate, and *nitric acid also a white one.* Leucorrhœal matter wants many of the characters of the spermatic fluid, and the re-agents cause but a slight precipitate, if it be treated in the same manner as already described. Lastly, spots of saliva sometimes become yellowish on exposure to the fire, and in some of the experiments of Orfila, the liquid solution that was obtained was unaltered by nitric acid. It is evident from these results, says Devergie, that we are still in need of more characteristic tests of semen.*

[This want is now abundantly supplied by the microscope. If a small portion of the stained linen be soaked in a few drops of water in a watch glass for ten minutes, the fluid then pressed out gently with the fingers, and subjected to *careful* examination with a power of not less than 300, spermatozoa

* Orfila, Leçons, second edition, vol. ii. p. 573, translated by Dr. Gross, in the Western Medical Gazette, vol. ii. p. 244; Sedillot, p. 93; Devergie, vol. ii. p. 903.

For cases examined under the direction of the public prosecutor in France, by Chevallier, see Annales d'Hygiène, vol. xi. p. 210; Medico-Chir. Review, vol. xxiv. p. 516; Audouard, Journal de Chimie Medicale, April, 1843.

will be detected, if the stain be from semen. This has been tried successfully on *stains* that were months old.—[C. R. G.*]

III. *The laws of various countries concerning this crime.*

There are two reflections which are of deep weight in all our investigations on this subject, and which should particularly be kept in mind when noticing the laws concerning it. The nature of the crime being an offence against the weaker sex, and committed in secrecy. Being of so detestable a character, and so difficult to be proved, the law has wisely ordained that the testimony of the injured person shall be sufficient, unless impeached, to convict the criminal. But again, and this is the second remark, false accusations are frequently made for the gratification of malice and revenge. The Scriptures, and the records of courts in all countries, bear testimony to this.† In this point of view, the medical jurist may often aid the ends of justice in punishing the wicked, and absolving the innocent.‡

I have thought that a sketch of the laws of various countries concerning this crime might prove interesting, and, in some degree, useful. The materials for this purpose have been

* [On the subject of spermatozoid, and other characteristics of the seminal secretion, see late treatises on Physiology, Carpenter, Todd, Dalton, Bowman, etc.—A. F.]

† On the trial of Levi Weeks for the murder of Miss Sands, held at New York, March, 1800, the counsel for the prisoner stated, that “in that very city, a young man, not many years ago, had been charged with the crime of rape. The public mind was highly incensed, and even after the unfortunate man had been acquitted by the verdict of a jury, so irritated and inflamed were the people, that the magistrates were insulted, and they threatened to pull down the house of the prisoner’s counsel. After that, a civil suit was instituted for the injury done the girl, and a very enormous sum given in damages, and the defendant was ignominiously confined within the walls of a prison. Now it has come out, that the accusation was certainly false and malicious.” (Report of the Trial, etc., p. 67.)

‡ A man named Stewart was tried at the Old Bailey, in 1704, for ravishing two female children. The evidence being at variance as to the fact of penetration, the children were sent out of court to be examined, and the eldest was found to have the signs of virginity. (Smith, p. 397.)

collected, in a great measure, by Blackstone and Percival, and I have added to these the laws existing in various States throughout the Union. I shall notice separately the laws respecting the commission of the crime on a female of tender age, and on the female who has arrived at maturity.

1. As this crime can be committed with the greatest facility on children under the age of puberty, in consequence of their want of strength, but particularly from their ignorance of the consequences of the act, the law has wisely directed that the consent or non-consent of the female under age is immaterial, "as by reason of her tender age, she is incapable of judgment and discretion."

In the third year of Edward I., by the statute Westminster, the offence of ravishing a damsel within age, (that is, *twelve* years old,) either with her consent or without, was reduced to a trespass, if not prosecuted by appeal within forty days, and the offender was subjected to two years' imprisonment, and a fine at the king's will. This lenity, however, was in a short time found very injurious, and by statute 18 Elizabeth, chap. 7, carnally knowing and abusing a child under the age of *ten* years, was made felony, without benefit of clergy. Sir Matthew Hale, says Blackstone, is indeed of opinion that such actions committed on an infant under the age of *twelve* years, the age of female discretion by the common law, either with or without consent, amount to rape and felony, as well since as before the statute of Queen Elizabeth; but that law, he adds, has in general been held only to extend to infants under *ten*.*

By a recent act, however, (9 George IV. chap. 31,) passed in 1828, it is ordained that any one unlawfully and carnally knowing and abusing any female under the age of ten years, shall be guilty of felony, and shall suffer death. If the same be committed on a female above ten and under twelve, the offence shall be deemed a misdemeanor, and liable to imprisonment.

* Blackstone's Commentaries, vol. iv. p. 212.

In Scotland, it is held that consent cannot be given below the age of twelve years.*

The French code of 1810 ordains that if the crime has been committed on a child under the age of *fifteen* years, the offender shall be condemned to hard labor for a limited time, (*travaux forces a temps*.)† But it would seem that CONSENT on the part of the minor female modifies the nature of the crime in France. At least such was the decision of the Court of Assize at Strasburg, in 1827. An individual escaped from the punishment of rape for this reason.‡

In the State of New York, the statute of the 18th of Elizabeth appears to have been copied. By an act passed Feb. 14, 1787, it was ordained that if any person should unlawfully or carnally know a woman child under ten years of age, such unlawful or carnal knowledge should be adjudged a felony, and the criminal should suffer death.§ But by an act passed March 21, 1810, the above punishment was changed to that of imprisonment in the State prison, and continues so at the present time.|| In Massachusetts alone, so far as I am able to ascertain, the punishment is death.¶ In Virginia, Connecticut, New Hampshire, Maine, New Jersey, Illinois, Ohio, Michigan, and Tennessee, the punishment is either imprisonment for life or a term of years, or fine and imprisonment, or both. All these specify the period of *ten* years.** The law in Vermont varies from this. It directs that whenever any individual over the age of fifteen shall abuse any female under *eleven*, with or without her will, he shall suffer fine and im-

* Alison, Principles, p. 213.

† Code Penal, art. 332.

‡ Briand, second edition, p. 10.

§ Jones and Varick's edition of the Laws of New York, vol. ii. p. 47.

|| Revised Statutes, vol. ii. p. 663.

¶ General Laws of Massachusetts, 1807, vol. iii. p. 340.

** Revised Laws of Virginia, 1803, vol. i. p. 356; Session Laws of Connecticut, 1830, p. 254; Laws of New Hampshire, 1830, p. 137; Laws of Maine, 1829, p. 1190; Digest of the Laws of New Jersey, 1833, p. 223; Revised Laws of Illinois, 1833, p. 179; Laws of Ohio, 1831, p. 136; Laws of Michigan, 1820, p. 193; Digest of Laws of Tennessee, 1831, vol. i. p. 245.

prisonment.* In Indiana, the age of the female is extended to *twelve* years, and the punishment is imprisonment for a term of years.† In Missouri, a rape on a female under the age of *ten* years, is punished by castration.‡ In Delaware, the law directs a fine, standing in the pillory for an hour, sixty lashes on the back, well laid on, imprisonment for not more than two years, and afterwards to be sold as a servant for a term not exceeding fourteen years.§

A few remarks are here necessary as to the credibility of witnesses in these cases. "If a rape," says Blackstone, "be committed on an infant under twelve years of age, she may still be a competent witness, if she hath sense and understanding to know the obligation of an oath, or even to be sensible of the wickedness of telling a deliberate lie. Nay, though she hath not, it is thought by Sir Matthew Hale that she ought to be heard without oath, to give the court information; and others have held, that what the child told her mother, or other relatives, may be given in evidence, since the nature of the case admits frequently of no better proof.|| But it is now settled," he adds, (Brazier's case before the twelve judges, 19 George III.) "that no hearsay evidence can be given of the declaration of a child who hath not a capacity to be sworn; nor can such a child be examined in court without oath; and that there is no determinate age at which the oath of the child ought either to be admitted or rejected.¶ Yet," he adds,

* Laws of Vermont, 1825, p. 254.

† Revised Laws of Indiana, 1831, p. 136.

‡ Revised Laws of Missouri, 1825, vol. i. p. 283.

§ Revised Laws of Delaware, 1829, p. 129.

|| Formerly it was the practice in the English courts, to refuse the evidence of children. (See the *King v. Travers*, in 1 Strange, p. 700.) Lord Chief Baron Gilbert and Chief Baron Raymond, at two different trials, refused the evidence of the injured child, who was six years old, and the man was acquitted for the want of evidence.

¶ The case above mentioned was as follows: One Brazier was indicted at the assizes for York, for a rape on an infant seven years of age. The information of the infant was received in evidence against the prisoner; but as she had not attained the years of presumed discretion, and did not appear to possess sufficient understanding to be aware of the danger of perjury,

"where the evidence of children is to be admitted, it is much to be wished, in order to render their testimony credible, that there should be some concurrent testimony of time, place, and circumstances, in order to make out the fact; and that the conviction should not be grounded singly on the unsupported accusation of an infant under years of discretion."*

2. I shall now proceed to give an enumeration of the laws of various countries against the crime of rape, arranged, as much as possible, in chronological order. "If a man," says the Jewish law, "find a betrothed damsel in the field, and the man force her and lie with her, then the man only that lay with her shall die: but unto the damsel thou shalt do nothing, for he found her in the field, and the betrothed damsel cried, and there was none to save her."† In case the female was

she was not sworn. The prisoner was convicted; but the judgment was respited, on a doubt whether evidence, under any circumstances whatever, could be legally admitted in a criminal prosecution, except upon oath. Mr. Justice Gould accordingly reserved this point for the opinion of the twelve judges; and they unanimously agreed "that no testimony can be received legally except upon oath; and that an infant, though under the age of seven years, may be sworn in a criminal prosecution, provided such infant appears, on strict examination by the court, to possess sufficient knowledge of the nature and consequences of an oath. For there is no precise or fixed rule as to the time within which infants are excluded from giving evidence, but their admissibility depends upon the sense and reason they entertain of the danger and impiety of falsehood, which is to be collected from their answers to questions propounded to them by the court; but if they are found incompetent, their testimony cannot be received." (East's Crown Law, vol. i. p. 444.)

* Blackstone, vol. iv. p. 214. In South Carolina a case occurred, in 1813, where the material witness was the female injured, of seven years of age. The prisoner was convicted; and on appeal, the judgment was held good. The court remarked, that this testimony was sufficient, if corroborated by circumstances; and in this instance, both the prisoner and witness had the same disease. (*State v. Le Blanc*; 2 South Carolina Constitutional Reports, p. 354.)

In *Regina v. Nicholas*, Lord Chief Baron Pollock refused to receive the testimony of the girl, who was only six years old. (2 Carrington and Kirwan, 245.)

† Deuteronomy, xxii. 25. Michaëlis, however, contends that for rape, as rape, no punishment is appointed by the Mosaic law; and he explains

not betrothed, then a fine of fifty shekels was to be paid to her father, and she was to be the wife of the ravisher, without permitting him the power of divorce.

Among the Athenians, rape was punished with death; and by the Roman or civil law, with death and confiscation of goods.* The latter, however, ordained "*Rapta raptoris, aut mortem, aut indotatas nuptias optet;*" and upon this, says Dr. Percival, there arose what was thought a doubtful case. "*Una nocta quidam duas rapuit, altera, mortem optat, altera nuptias.*"† The Roman law also would not receive the complaint of a prostitute.‡

Among the Lombards, after their settlement in Italy, "crimes against chastity were visited sometimes too mildly, at others too severely. He who forced his own female slave, provided she were single, escaped without punishment; but if she were married, both she and her husband were enfranchised. If he forced the bondwoman of another, he was subject to the penalty of twelve, twenty, or forty sols, according to her comparative state. The ravisher of a free woman was mulcted at a much heavier sum—at nine hundred sols."§

It would appear that there was no punishment provided for this crime in the codes of several of the original Germanic

the above passage by considering it only as rape committed on a bride. In either case, whether in the city (verse 23) or in the field, the perpetrator was to be punished—but not if the female was not betrothed. Our author proposes several reasons for this omission, and, among others, the debasement which polygamy produces in the female sex, and the law that whoever debauched a damsel should marry her. This last he deems a more effectual preventive of rape than capital punishment. (Michælis' Commentaries, vol. iv. pp. 169 to 174)

* Gibbon, vol. ii. p. 252. Law of Constantine. [This law was fearfully severe. Seduction was placed on the same footing as rape. The virgin's declaration of her consent did not save her ravisher, but exposed her to share his fate. The successful ravisher was either burned or torn in pieces by wild beasts in the amphitheatre. Slaves accessory to rape or seduction were burned alive or had molten lead poured down their throats. The law was, however, very soon repealed.—C. R. G.]

† Medical Ethics, note 17, p. 231.

‡ Foderé, vol. iv. p. 325.

§ Europe during the Middle Ages, in Lardner's Cyclopaedia, vol. i. p. 16.

tribes. At least, "the code of the Bavarians had none, except such as the ecclesiastical law directed, for the freeman who violated a female unmarried slave. The slave, however, who violated a free maiden, was surrendered to her parents, to do with him what they pleased, even to put him to death."*

Charlemagne punished with death whoever violated the daughter of his master.† The Burgundian laws provided that if the young woman carried off returned to her parents actually corrupted, the offender should pay six times her price or legal valuation, and also a mulct of twelve shillings. If he had not wherewithal to pay these sums, he should be given up to her parents or near relatives, to take their revenge on him in what way they pleased.

By the Welsh laws of Prince Hoel Dha, if two women were walking together without other company, and violence was offered to either or both of them, it was not punishable as a rape; but if they have a third person with them, they might claim their full legal redress. If the perpetrator of a rape, being accused, confessed the fact, besides full satisfaction to the woman, he was to answer for the crime to his sovereign, by the present of a silver stand as high as the king's mouth, and as thick as his middle finger, with a gold cup upon it so large as to contain what he could take off at one draught, and as thick as the nail of a country fellow who had worked at the plough seven years. If the offender was not able to make such a present, *virilia membra amittat*.

* Europe during the Middle Ages, in Lardner's Cyclopaedia, vol. ii. p. 137.

† "Si quis filiam domini sui rapuerit, morte moriatur." (See Memoirs of Literature, vol. vi. p. 103; "A notice of the Monumenta Paderbornensia, to which is added the Capitulary of Charlemagne, from a very ancient Palatine manuscript in the Vatican, published in 1713.") Hallam also mentions, that under the feudal system it was considered a breach of faith in the vassal to violate the sanctity of his master's roof. In the Establishments of St. Louis, chapters li. lii., it is said that a lord seducing his vassal's daughter, entrusted to his custody, lost his seignior; and a vassal guilty of the same crime toward the family of his suzerain, forfeited his land. (Hallam's Middle Ages, vol. i. p. 187, American edition.)

By the law of Æthelbert, the first Christian king of Kent, it was enacted, that if any person take a young woman by force, he shall pay her parent or guardian fifty shillings, and shall make a further compensation for her ransom. If she were espoused, he shall compensate the husband, by an additional payment of twenty shillings; but if she were with child, the augmented fine shall be five and thirty shillings, and fifteen more to the king.

There is also an ordinance of Alfred in existence, for the punishment of rapes committed on country wenches who were servants; an offence (says Dr. Percival) which may be supposed to have been prevalent at that time.* Rape, however, by the Saxon laws, particularly those of King Athelstan, was punished with death; which was also agreeable to the old Gothic or Scandinavian constitutions. Besides this, the horse, greyhound, and hawk of the offender were subjected to great corporal infamy. Instead of this, a new punishment was inflicted by William the Conqueror, who probably brought the custom from Normandy, viz., castration and loss of eyes. During the period that this was in force, the woman who was the sufferer might (by consent of the judge and her parents) redeem the criminal from all the penalties, if, before judgment, she demanded him for her husband, and he also was willing to agree to this exchange. The law of William continued in force in the reign of Henry III.; but in order to prevent malicious accusations, it was then law, (and, it seems, still continued to be so in appeals of rape,) says Blackstone, that the woman should immediately after, "*dum recens fuerit maleficium*," go to the next town, and there make discovery to some credible persons of the injury she has suffered, and afterwards should acquaint the high constable of the hundred, the

* It is as follows: "Si quis coloni mancipium ad stuprum comminetur, 5 sol. Colono emendet et 60 sol. multæ loco. Si servus servam ad stuprum coegerit, compenset hoc virgá suâ virili. Si quis puellam teneræ ætatis ad illicitum concubitum comminetur, eodem modo puniatur quo ille qui adultæ servæ hoc facerit." (Percival, p. 228.)

coroners, and the sheriff, of the outrage. This seems to correspond in some degree with the ancient laws of Scotland and Arragon, which require that complaint must be made within twenty-four hours; though afterwards, by statute Westminster, the time of limitation was extended to forty days. This statute, passed in the 3d of Edward I., repealed the law of the Conqueror, and greatly mitigated the punishment. The offence of ravishing a woman against her will, was reduced to a trespass, if not prosecuted by appeal in forty days; and it subjected the offender to only two years imprisonment, and a fine at the king's will. But this lenity was found productive of the most terrible consequences; and in ten years after, 13th Edward I., it was found necessary to make the offence of forcible rape, felony by statute.*

The constitution of Charles V. enacted the punishment of death for rape; and the edict of Francis I., preserved by Coquille, together with the ordinances of Orleans and Blois, forbade the asking of pardon for this crime. Henry II. of France, by an ordinance of 1557, condemned those who had forced a woman or a girl, to be hung. Such was also the edict of Louis XV. in 1730; and such are the laws of various States in Italy. The ancient parliaments of France, during the sixteenth and seventeenth centuries, enforced the law with great severity on those accused of the crime.†

* Blackstone, vol. iv. pp. 210, 211; Percival, p. 100, and note 17, p. 228; Chitty's Criminal Law, vol. ii. p. 813.

† Foderé, vol. iv. p. 326. "Among the familiar customs of the Isle of Man, are the following: If a man ravish a wife, he must die; if a maid, the deemsters (the judges) deliver to her a rope, a sword, and a ring; and she is then to have her choice to hang, behead, or marry him." (See Review of a Tour through the Isle of Man, by David Robertson, Esq., London, 1793, in the British Critic, vol. iii. p. 408.)

In China, rape is punished with death. (Edinburgh Review, vol. xvi. p. 498; Review of the Penal Code of China, translated by Sir George Staunton.)

In modern Egypt, under the present Pacha, rape by a bachelor is punished with one hundred blows, and banishment from six months to a year; but if by a married man, he is stoned to death. (Annales d'Hygiène, vol. x. p. 204.)

The above gleanings will elucidate, in some degree, the laws of former times concerning this crime. I now proceed to mention those which are, or lately have been, in force. The following maxims, says Foderé, (which he quotes from Boerius,) have been adopted for thirty years in Neapolitan jurisprudence, viz., that in accusation for rape, there be full proof of the following facts: 1. That there has been a constant and equal resistance on the part of the person violated. 2. That there is an evident inequality of strength between the parties. 3. That she has raised cries. 4. That there be some marks of violence present. The French code of 1791 ordained that a simple rape should be punished with six years' confinement in irons; but if the rape be committed on a child under fourteen years, or if the criminal had effected the crime by violence, or by the aid of accomplices, the punishment should be twelve years' confinement in irons. The law of 2d Prarial L'an 4 (1796) prescribed the same punishment for an attempt, if accompanied by violence. All these ordinances were, however, annulled by the Napoleon code, which prescribed imprisonment for the crime, if consummated or attempted with violence. If, however, the criminal has any authority over the person injured, such as guardian or a teacher, if he be a servant, public functionary, or clergyman, and finally, if the individual, whoever he be, is aided by one or more persons, the punishment shall be imprisonment for life.*

In Scotland, according to Baron Hume, the following facts are necessary to be proved on a charge of rape: 1. Penetration; but there is no distinct reference made to emission. 2. Actual force in the consummation; but it is held to be forcible knowledge if the female discontinue her resistance out of fear of death, or be rendered incapable of it, by the giving of narcotic drugs, or be under the age of puberty. So also if she faint, during the struggle, from terror or fatigue, or is incapable of opposition from natural infirmity. Thus James Mackie was condemned in 1650, for a rape on a cripple, a

* Foderé, vol. iv. pp. 328, 329; Code Penal, art. 331, 333.

lame lass sixteen years old, laying bedridden in her father's house alone. No limitation as to the time of making the complaint exists at present, although a long delay might doubtless prejudice a jury against the prosecutor.*

The ravisher is exempted from the pains of death only in case of the woman's subsequent consent, or her declaration that she went off with him of her own free will; and even then he is to suffer an arbitrary punishment, either by imprisonment, confiscation of goods, or a pecuniary fine.

The law at present in force in England is the statute 18th Elizabeth, chap. vii., in which rape is made felony, without benefit of clergy. It is a necessary ingredient in the English law, that the crime should be against the woman's will, and in this it differs from the Roman, which prescribed the same punishment, whether the female consented or not. The civil law also, (as we have already stated,) does not seem to suppose a prostitute capable of any injuries of this kind, while the English law holds it felony to force even a concubine or harlot, because the woman may have forsaken that course of life. At present, also, no time of limitation for making complaint is fixed, but the jury will rarely give credit to a stale accusation. We may add, that the common law considers a male infant, under the age of fourteen, as incapable of committing a rape, and therefore cannot be found guilty of it. For though (says Blackstone) in some felonies, *malitia supplet ætatem*, yet as to this particular species, the law supposes an imbecility of body as well as mind.†

* Hume's Commentaries on the Laws of Scotland, vol. ii. pp. 3, 5, 6, 14; Brewster's Edinburgh Encyclopedia, vol. xi. p. 823; Law of Scotland.

† Blackstone, 4, chapter xv. section 3. A case bearing on the above point was decided some years since in Massachusetts. In 1823, a boy, under the age of fourteen, was convicted of an *assault with intent to commit a rape*. On a motion in arrest of judgment, the law, as above quoted, was urged, showing that a person is deemed incapable, and consequently that it would be absurd to punish him for *attempting* what the law presumes him incapable of *doing*. But the court decided that the judgment must stand. "The law which regards infants under fourteen as incapable of committing rape was established *in favorem vitæ*, and ought not to be applied by analogy

In the State of New York, death was formerly the punishment for committing a rape on a married woman or a maid. (Act passed February 14, 1787.)* And it was also ordained at the same time, that if a woman had been ravished, and afterwards consented to her ravisher, her husband, father, or next of kin might sue by appeal against such offender. These laws, however, have been repealed, the punishment altered, and appeals of felony abolished. The acts now in force prescribe the punishment of imprisonment for ten years in the State prison, on the offender and his accomplices, if he have any, for ravishing by force any woman child of the age of ten years or upwards, or any other woman. An assault with an intent to commit a rape, may be punished by fine and imprisonment, or both.

The following enactment has also been recently added: "Every person who shall have carnal knowledge of any woman above the age of ten years, without her consent, by administering to her any substance or liquid which shall produce such stupor, or such imbecility of mind or weakness of body, as to prevent effectual resistance, shall, upon conviction, be punished by imprisonment in a State prison, not exceeding five years."†

to an inferior offence, the commission of which is not punished with death. An intention to do an act does not necessarily imply an ability to do it; and females might be in as much danger from precocious boys as from men, if such boys are to escape with impunity from felonious assaults, as well as from felony itself." (*Commonwealth v. Green*, 3 Pickering's Massachusetts Reports, p. 380.)

It is mentioned in the *Boston Medical and Surgical Journal*, vol. xxxiii. p. 386, that in a case which occurred in the State of Ohio, where a negro boy under fourteen years was charged with an attempt to outrage a child five years old, and the crime was proven, it was urged that children of African descent arrive at puberty earlier than Europeans. It seems the general law was disregarded, since the prisoner was found guilty, and sentenced to three years imprisonment.

* Jones and Varick's Edition of Laws, vol. ii. p. 57.

† Revised Statutes, vol. ii. pp. 663-666. It would seem that by the English law, the above offence is equally rape. In 1814, a prisoner was tried at the Old Bailey, on an indictment for rape, committed on the person of a girl thirteen years old. The evidence was, that the prisoner made her

In the States of Massachusetts, Rhode Island, Delaware, and South Carolina, the punishment prescribed is death;* while in Connecticut, Georgia, Illinois, Indiana, Ohio, Maine, New Hampshire, New Jersey, Vermont, Pennsylvania, Virginia, and Michigan, imprisonment for a term of years, or for life, is directed. In some few cases, fine or imprisonment, or both.† In Louisiana, imprisonment and hard labor for life is the punishment.‡ In the States of Missouri and Arkansas the punishment prescribed is castration.§

quite drunk, and while she was insensible, violated her. The jury found that the prisoner gave her the liquor for the purpose of exciting her, and not intending to render her insensible, and then have connection with her. The prisoner's counsel objected that the crime of rape was not proved, and that point was reserved for the opinion of the judges.

On an argument before them, (April 26, 1845,) it was urged that the definition of rape is an unlawful carnal knowledge of a woman, by force and against her will; that this did not occur in the present instance, and that it could not be supplied by any inference whatever. *Justice Patteson*: Do you contend that every woman who is blind drunk by the wayside, is open to a rape from every person who passes by? To this it was replied, that insensibility is contradictory in terms to the definition of rape. If a man, by fraud, has connection with a married woman, it has been held not to be a rape; and the recent case of *Regina v. Stanton*, was also cited. Lord Denman remarked: It is put as if resistance was essential to rape, but that is not so, although proof of resistance may be strong evidence in the case.

The judges affirmed the conviction, and in sentencing the prisoner, it was stated that the female showed by her word and conduct up to the very latest moment at which she had sense or power to express her will, that it was against her will that intercourse should take place. (*Regina v. Camplin*, 1 Carrington and Kirwan's Reports, p. 746; London Medical Gazette, vol. xxxvi. p. 433.)

* Laws of Massachusetts, 1807, vol. iii. p. 340; Revised Laws of Delaware, 1829, p. 128; Public Laws of South Carolina, edited by Judge Grimke, p. 30; Fourth Report of American Prison Discipline Society.

† In addition to the references on a former page, Prince's Digest of Laws of Georgia, 1817, p. 349; Laws of Pennsylvania, 1803, vol. v. p. 2; Revised Laws of Virginia, 1803, vol. i. p. 356. In New Jersey, a second offence is punished with death. (Laws, 1828.)

‡ *Digeste Général des Actes de la Legislature de la Louisiana*, 1828, vol. i. p. 441.

§ Revised Laws of Missouri, part 125, vol. i. p. 31; Nuttall's Journey to the Arkansas, p. 224.

The attempt to commit this crime, or its actual completion, by a negro or mulatto. is made a subject of special legislation in several States. Thus, in Tennessee, Alabama, and Louisiana, even the attempt on a white woman is made a capital offence.* In Virginia and Missouri, the same is punished by castration.†

In a few of the States, some specific provisions are made as to the proof of rape. In Illinois, it is not necessary to prove emission, in order to constitute it; and in Indiana and Tennessee, penetration is held sufficient.

The reason on which this change is founded, may deserve some consideration at the conclusion of the present section.

Rape is the *carnal knowledge* of a female, forcibly and against her will. It has been a subject of legal discussion, as to what constitutes this carnal knowledge. Some judges have supposed that penetration alone was sufficient, while others have contended that penetration and emission are both necessary. All seem agreed that the former without the latter will not suffice. The following abstract, taken from Chitty's Treatise on the Criminal Law, will give an idea of the fluctuating state of jurisprudence on this subject: "Lord Coke, in his Reports, supposes both circumstances must concur, 12 Cok. 37, though he does not express himself so clearly in his Institutes. Hawkins, without citing any authority, or hinting a doubt, declares the same opinion. Hale, however, differs from both, and considers the case in Coke's Reports as mistaken. In more modern times, prisoners have been repeatedly acquitted, in consequence of the want of proof of emission. In one instance, (*Rex v. Russen*, 14 Petersdorff, 116,) on the other hand, the prisoner was found guilty under the direction of Justice Bathurst, who did not consider this fact necessary to

* Laws of Tennessee, 1833, p. 94; Laws of Alabama, 1830; Code Noir of the Louisiana Digest, vol. i. pp. 234, 297. Virginia punishes actual rape on a white woman by a slave, with death.

† Mr. Jefferson, who was appointed a reviser of the laws of Virginia, in 1778, proposed castration as the punishment in all cases of rape. (Works, vol. i. p. 126.) This was not, however, adopted.

the consummation of the guilt. But in Hill's case, which was argued in 1781, a large majority of the judges decided that both circumstances were necessary, though Buller, Loughborough, and Heath maintained a contrary opinion."*

Assuming the definition of the crime seems to be settled, if we proceed to notice the mode in which the emission is to be proved, we shall find some discordance. East observes, that penetration is *prima facie* evidence of it, unless the contrary appears probable from the circumstances; and adds, that Hawkins is express to that purpose. "So where, upon an

* Chitty's Criminal Law, vol. ii. p. 810. This abstract is, for the most part, taken from East's Pleas of the Crown, (vol. i. pp. 437 to 440.) In this last, a number of cases are given, which very strikingly prove the diversity of opinion that has existed among the English judges. The leading particulars in the case of Hill, cited above, are also stated; and the great majority of the judges that deemed both necessary, to constitute the crime, seem to have settled the law in that country. A decision conformable to it was made by Baron Richards, at the Northumberland assizes in 1815; and as the case is interesting, I shall detail its leading particulars. The prosecutrix was a married woman, apparently between thirty and forty years of age. The defendants were two brothers, by one of whom the act was alleged to have been perpetrated, while the other held the husband forcibly down at not more than two yards distance from the spot where his wife was said to have been violated. The woman swore positively to the penetration, but could not swear to the emission; and she assigned as a cause, the agitation and syncope which supervened during the struggle. She perfectly comprehended the import of the question put to her; and declared explicitly, that she had, on every previous coition with her husband, been sensible of the act of emission. Nor could she say that she was aware of any unusual humidity of the parts immediately after the commission of the crime. This she ascribed to having tumbled or waded through some water at the bottom of the dean where the assault took place. On both these points, Baron Richards laid great stress; and told the jury, that the fact of emission must be sworn to or proved, in order to constitute the crime of rape, according to the law of England. The evidence of the husband also went to prove that the ravisher remained long enough on the body of the female to complete his purpose. The evidence for the prosecution, however, failed in credibility; as the prisoner's counsel, besides the above particulars, showed satisfactorily that the man and his wife were at the time in a state of intoxication sufficient to destroy the validity of what they had sworn to. The prisoners were accordingly found not guilty. (Edinburgh Medical and Surgical Journal, vol. xii. p. 207.)

indictment for an assault with an intent to ravish the prosecutrix, she swore that the defendant had had his will with her, and had remained on her body as long as he pleased, though she could not speak as to emission, Judge Buller said that this was a sufficient evidence to be left to a jury of an actual rape; and therefore ordered the defendant to be acquitted under the present charge. He said that he recollected a case where a man had been indicted for a rape, and the woman had sworn that she did not perceive anything come from him; but she had had many children, and was never, in her life, sensible of emission from a man: and that was ruled not to invalidate the evidence which she gave of a rape having been committed on her."* Chitty observes, "It is certain that no direct evidence need be given to the emission; but that will be presumed on proof of penetration, until rebutted by the prisoner. And it will suffice to prove the least degree of penetration, so that it is not necessary that the marks of virginity should be taken from the sufferer."† So also Baron Richards, in the case cited below, although he deemed emission essential, and the woman was not sensible of it, yet told the jury that it was for them to deliberate whether, on a careful examination of all the other collateral circumstances of the case, they had reason to be satisfied that this part of the crime, as well as every other, had been actually consummated.‡

If there be any truth in the views already intimated concerning the possibility of committing this crime, and the cases in which it may be completed, certainly the necessity of establishing the fact of emission must prove an insuperable barrier to any conviction. We may divide females, with reference to

* East, 2, p. 440. This case was tried at the Winchester assizes, 1787.

† Chitty, 2, p. 812. I have already quoted the case, (p. 193,) on which the latter part of this dictum is founded. This may probably be correct in children under ten years of age; but in all others, it will be readily observed, that if it be allowed, all possibility of the female's proving the emission is in a great measure done away. Surely such instances are rather to be considered as *attempts to commit the crime*, than the *consummation of it*.

‡ Edinburgh Medical and Surgical Journal, vol. xii. p. 208.

this subject, into two classes—the young, unmarried persons; and the married, or those accustomed to sexual intercourse. As to the first, it may be considered very improbable that they could be conscious of this, while laboring under the influence of terror, severe pain, faintness, or insensibility. And to this class also belong those of a very tender age, who are totally ignorant of the nature of the crime, and what is necessary to complete it.

It is, however, urged, that there is great propriety in requiring this testimony from married females; and that if they are not sensible of that “which constitutes the very essence and climax of feeling,” their declarations do not deserve much credit as to the other parts, in which a less degree of poignancy of sensation is requisite.* I confess that language of this kind appears misapplied. If proper resistance be made, where the contest is solely between two individuals of strength in any degree proportionate, the crime can scarcely be completed without violent personal injury to the female. The exhaustion that must be present, superadded to mental agitation, renders it more than doubtful whether this enjoyment can be realized. And it also deserves consideration, that if the resistance has been *complete throughout*, such pain may ensue from the repeated attempts to effect the crime, as to dull all sensation on this point. I forbear pressing the case mentioned by Judge Buller, although it is probable that other females, like the one mentioned by him, may be sensible of it.†

The diversity of opinion that I have noticed, has extended

* Edinburgh Medical and Surgical Journal, vol. xii. p. 209.

† “Considering the nature of the crime, that it is a brutal and violent attack upon the honor and chastity of the weaker sex, it seems more natural and consonant to the sentiments of laudable indignation which induced our ancient lawgivers to rank this offence among felonies, if all further inquiry were unnecessary, after satisfactory proof of the violence having been perpetrated by actual penetration of the unhappy sufferer’s body. *Under what principle, and for what rational purpose, any further investigation came to be supposed necessary, the books which record the dicta to that effect do not furnish a trace.*” (East, 2, pp. 436, 437.)

to our own country. In a case tried some years since at the Albany Circuit, in this State, by the late Justice Platt, he declared the law to be as laid down by the judges in Hill's case. But in Pennsylvania emission is not deemed essential. In a case tried in 1793, when it was urged that both penetration and emission should be proved, the judge said: "We are inclined to the opinion, that the crime is sufficiently proved, when penetration is proved. It is not to be expected that the woman especially agitated by such outrage, should be able to give explicit proof of this circumstance."* So also in South Carolina, in 1813, Judge Nott said he had strong doubts whether it was necessary to prove emission, and the court refused to disturb the verdict.†

The difficulties attending such conflicting decisions in England, probably led to the enactment of a recent law there, by which it is ordained, that on trials for the crime of rape, and of carnally abusing girls under the respective ages of ten or twelve years, it is not necessary to prove actual emission in order to constitute carnal knowledge, but this shall be deemed proved upon testimony of penetration only.‡ This law was passed in 1828, 9th George IV., and it is often called Lord Lansdowne's Act, as that nobleman introduced it.

Scarcely, however, had this become the statute law of the realm, when difficulties occurred in its construction. In August, 1831, on a trial before Justice Taunton, the female proved penetration, and also that she felt warmly in her private parts, but could not prove emission. The counsel for the prosecution submitted that this was a case exactly coming

* *Commonwealth v. Sullivan*, Addison's Pennsylvania Reports, p. 143.

† *State v. Le Blanc*, 2 South Carolina Constitutional Reports, 351. I have already mentioned that, in Illinois, the statute requiring proof of emission was formally repealed. (Acts passed in 1819, p. 219.)

‡ Professor Amos queries whether, under this law, a *eunuch* may not be found guilty of a rape; and again, he suggests the possible case, where no penetration is proved, but emission only. (*London Medical Gazette*, vol. viii. pp. 33-96.) In this last, however, the jury would doubtless infer the one from the other, particularly as Lord Hale has pronounced emission an *evidence* of penetration.

within the late law. The judge, however, said that all that constitutes carnal knowledge should have happened. The jury must be satisfied from circumstances, that emission took place, and although it was not necessary specifically to prove it, yet the circumstances should be such as to infer it. The prisoner was accordingly acquitted.*

I must be permitted to agree with the reporter of the case, in saying that this decision makes the statute of George IV. inoperative. Even before its enactment, it was unnecessary to give *direct* evidence of emission. It was enough if the circumstances were such as to satisfy that it had taken place. But how can Judge Taunton's opinion be reconciled with the statute, which says that it is *sufficient to prove penetration only*?

His decision, however, appears to have been subsequently overruled. In *Rex v. Cox*, at the Worcester assizes, in 1832, before Justice Littledale, the jury found that there had been penetration, but no emission from the prisoner, and the judge, after passing sentence on the prisoner, reserved the case for the consideration of the fifteen judges. They held the conviction to be right.†

In a still later case, *Regina v. Lines*, with some curious incidents, the doctrine was still more strongly enforced. It appeared from the examination of Mr. Williams, the surgeon, that the hymen of the child (under ten years) was not ruptured, but upon it was a venereal sore, which he deposed must have arisen from actual contact with the virile member of a man. It was contended that although this showed actual contact, yet it did not establish penetration sufficient to constitute the crime. But the judge (Baron Parke) said, I shall leave it to the jury to say whether, at any time, any part of the virile member of the prisoner was within the labia of the pudendum, for if it ever was, (no matter how little,) that will

* Moody and Malkin, p. 122; *Rex v. Russel*.

† 5 Carrington and Payne, p. 297; *American Jurist*, vol. xi. p. 459; *Chitty's Med. Jurisprudence*, part 1, p. 379.

be sufficient to constitute a penetration, and the jury ought to convict the prisoner of the complete offence.*

In Scotland, after much diversity of opinion, the point now considered was settled in 1821, by Lord Gillies, who "laid it down, with the concurrence of the court, that rape may be perpetrated by complete penetration without emission, and that when the injured party is below the age of puberty, it is enough if her body has been entered, though not to the degree which takes place with a full-grown woman."†

A trial for this crime, on a girl between fourteen and fifteen years of age, was held at Edinburgh, in January, 1841. She had never menstruated. The parts of generation presented no unusual appearance externally; internally, there was an excoriation in the lower part of the vulva, extending from the fossa navicularis to the fourchette, but the fourchette itself was uninjured. The imperfect hymen or carunculæ, that were observed, were uninjured. No blood or seminal spots were seen on the person or dress of the female by the medical examiners. Dr. J. A. Robertson and Professor Simpson were examined and concurred in stating, that the vagina was bounded externally by the hymen; that the abrasion in the fossa navicularis was not in the vagina, but in the vulva or vestibule of the vagina; that an abrasion in such a situation, when the frænum was uninjured, was more likely to have been caused by a finger or other pointed body, and that if penetration had taken place, they would have expected injuries of other parts; and that, at least, the fourchette would have been injured by the genital organs of the criminal, as they were very large. They also considered the absence of ecchymoses on the mons veneris, labia, thighs, etc., as very important circumstances in a charge of violation. The prisoner's counsel urged, that as there was no proof of *emission*, (the female not being able to swear to this,) there must be proof

* 1 Carrington and Kirwan's Reports, p. 393.

† Alison's Principles of the Criminal Law of Scotland, p. 210. See also the case of A. Robertson, in Swinton's Judiciary Reports, vol. i. p. 93.

of *full and complete penetration*, and this was contradicted by the facts.

Lord Meadowbank charged the jury to the effect, that the evidence of the prisoner's guilt was complete; that scientific and anatomical distinctions as to where the vagina commenced, were worthless in a charge of rape; and that, by the law of Scotland, it was enough if the *woman's body were entered*. In such a case as this, where there was no evidence of emission, and where the girl was young, he did not seem to consider it necessary to show to what extent penetration of the parts had taken place—whether it had gone past the hymen, into what was anatomically called the hymen, or even only as far as to touch the hymen. The prisoner was found guilty and condemned to death. (*Edin. Mon. Journ. of Med. Sciences*, Feb. 1841.)

By an enactment in the State of New York, a similar provision has been adopted, in the following words: "Proof of actual penetration into the body shall be sufficient to sustain an indictment for a rape, or for the crime against nature."*

The law as to what constitutes this crime is now the same, both in Great Britain and many of our own States. It is sufficient if penetration be proved. The following recent decisions may therefore be mentioned.

In *Regina v. Allen*, although it appears from evidence that the party was disturbed immediately after penetration, and before the completion of his purpose, yet he must be found guilty of having committed the complete offence of rape. (9 *Carrington and Payne's Nisi Prius Reports*, p. 31.)

In *Regina v. Jordan*, it was decided that a boy under fourteen years of age cannot be convicted of feloniously carnally knowing and abusing a girl under ten years of age, even although the surgeon swore that he had arrived at the full state of puberty. The judge also stated, that to constitute penetration, the parts of the male must be inserted in those of the female, but, *as matter of law*, it is not essential that the hymen should be ruptured. (*Ibid.*, p. 118.)

* Revised Statutes, vol. ii. p. 735.

In *Regina v. Hughes*, the crime was fully proved to have been committed on a girl between eleven and twelve years old, but a surgeon who had examined her, stated his belief, that although penetration had taken place, yet the hymen, which in this case was at the usual distance up the vagina, was not ruptured. The jury found to this effect—that there had been penetration, but that the penetration had not proceeded to the rupture of the hymen. The case was reserved for the consideration of the judges, and eleven of them decided that the verdict was sufficient. (*Ibid.*, p. 752.)*

A curious anatomical question appears to have been considered on this trial, originating in testimony given a number of years ago in the case of *Rex v. Russen*: “Benjamin Russen was master of a charity school, and was charged with two forcible rapes on Anne Wayne, one of the girls of the said school, the first fact being just before, the other just after she attained her age of ten years. The child swore to a full proof in both respects, (proof of both penetration and emission being at that time essential,) and her testimony was corroborated by marks observed on her linen at the time, but she was deterred by the prisoner’s threats from making any discovery till three or four months after the time. For the prisoner, it was proved by two surgeons, whose testimony was corroborated by four others who had examined the child, that the passage of the parts was so narrow that a finger could not be introduced, and that the membrane called the hymen, and which crosses the vagina and *is an indubitable mark of virginity*, was perfectly whole and unbroken, so that she never could have been completely known by a man. *But as this membrane was admitted to be in some subjects an inch, in others an inch and a half* beyond the orifice of the vagina, Judge Ashurst, who tried the prisoner, left it to the jury to say whether any penetration was proved; for if there was any, however small, the rape was complete in law. The jury found him guilty, and he received

* The effect of this decision is to declare the case of *Rex v. Gammon* not to be law.

judgment of death, but before the time of execution, the matter being much discussed, the learned judge reported the case to the other judges for their opinions, whether his directions were proper, and upon a conference, it was unanimously agreed by all assembled that the direction of the judge was perfectly right. They held that in such cases, the least degree of penetration is sufficient, though it may not be attended with the deprivation of the marks of virginity. It was therefore properly left to the jury by the judge, and accordingly the prisoner was executed."

The editors, in commenting on this case, show, by cases mentioned in the works of Dr. D. D. Davis and Dr. Paris, that the hymen is not an indubitable mark of virginity, since that membrane has been found entire during pregnancy, and remark, "with respect to the second proposition, there may be some doubt, as in all the preparations in the Museum of the Royal College of Surgeons, in which the hymen is shown, *it is not more than a quarter of an inch from the orifice of the vagina.*"

IV. *Of some Medico-Legal questions connected with this subject.*

Three questions relating to the subject before us have at various times been discussed, and they all deserve a brief notice.

1. *Whether the presence of the venereal disease in the female violated is a proof in favor or against her accusation?* If, on examination, the marks of this disease be found recent, it will be proper to consider them as corroborating circumstances. It is necessary, however, to remark, that the symptoms of venereal infection do not commonly make their appearance until three days after receiving it, while the examination should be made within that time. Should the appearances indicate anything like a disease of long standing, they must of course tend to weaken the complaint of the female. The following are cases which will illustrate these observations. On

the 11th of December, 1811, Foderé was directed by the imperial attorney of the court of Trevoux to visit a female aged from eleven to twelve years, who accused a man aged fifty, and of large stature, of having committed a rape on her. The crime, she stated, was consummated on the 26th of November preceding. On examination, our author found that in this person the menses had not yet appeared, the nymphæ were inflamed, and the parts surrounding the meatus urinarius discharged an acrid gonorrhœal fluid, the hymen was ruptured, and the entrance of the vagina enlarged, but the fourchette was not ruptured, nor were there any signs of great violence, or such as might be expected from the disproportion between the individuals. Foderé reported that the venereal disease in this child was a proof of connection, but he did not consider it so of rape. Her conduct, he adds, was destitute of all modesty. The accusation was, however, persisted in; but on the trial, it was proved that the parents had placed her with a woman who was a prostitute, and also that the child had never complained of violence until after she discovered symptoms of the venereal. The prisoner was acquitted.*

A somewhat opposite, but very interesting case, occurred some years since at Rome. A young man, of excellent family and high character, was accused of rape, by a girl not yet arrived at the age of puberty. He was arrested, and a medical examination of the female was had by three physicians and two midwives. They reported that they found "the sexual organs altered and tumid, and at the entrance of the vagina the hymen was entirely wanting; the whole of the vagina was irritated, inflamed, and of a deep-red color, but particularly so at the point of the frænulum." The vagina was dilated, so as to admit a finger with perfect facility; and finally, they observed a copious discharge of purulent and sanguinolent matters. The medical witnesses gave it as their opinion, that the complainant had been recently deflowered, and that the above-mentioned flux, by its quantity and appearance, might be de-

* Foderé, vol. iv. pp. 365, 366.

rived from a mechanical injury, or actually from a communicated gonorrhœa.

The girl swore that the discharge commenced *immediately* after the rape. It did not yield to the ordinary antiphlogistic treatment, and two subsequent examinations by the same physicians induced them to lean still more strongly to the idea of its being syphilitic.

The accused (named Crespi) was condemned. His case was reviewed by Metaxa, professor of anatomy at the Sapienza College, and the argument resolved itself into two points—first, to endeavor to set aside the charge of rape; and second, to demonstrate the pre-existence of leucorrhœa in the female.

On the first, the usual objections were urged as to the uncertainty of the proof to be derived from the absence of the signs of virginity, and it was argued that a rape thus committed on a female under the age of puberty, should have left more marked and severe traces.

His observations on the second were more conclusive. Condemning the insufficiency of the examinations, he asserts that the actual nature of the affection might have been ascertained with certainty. Leucorrhœa is constantly derived from the uterus, while gonorrhœa does not extend farther than the external organs. If, therefore, these last be washed carefully, and inspected, no mistake could occur. Again, he urged that gonorrhœa has its regular periods of high inflammation and decline; whereas leucorrhœa is often chronic, and increases and diminishes at intermediate times. The occurrence of the discharge *immediately* after the alleged violence, is also against the idea of its syphilitic origin.

Some criticisms on the depositions of the examining physicians conclude this work of Prof. Metaxa; such as their speaking of most acute inflammation, and yet no pain appearing to have been present; the vagina was much inflamed, and yet it could be examined with perfect facility. No hemorrhage, nor inability to move, appears to have followed the crime. Further, no mention was made of the presence of the carunculæ myrtiformes, which should have been seen from the laceration of the hymen.

Our author also brought testimony to prove that the accuser was of a scrofulous habit, and at a very early age had suffered from leucorrhœa.

On these grounds, Prof. Metaxa, and twenty-eight professors and physicians at Rome, who approved and signed his publication, gave an opinion in favor of the convicted criminal.

It led to a reversal of his sentence.

It is curious to remark, and the observation is a shrewd one of the reviewer whom I quote below, that the very argument of Prof. Metaxa, while it certainly goes to prove that the physicians were wrong in supposing gonorrhœa to be present, strengthens greatly the physical proofs of rape. We should not expect marks of severe injury or violent inflammation in parts previously relaxed by leucorrhœa, but appearances corresponding to what was observed. Such indeed was probably the truth of the case, and the Illustrissimo Signor Crespi escaped from a sufficient want of discrimination on a collateral point of testimony.*

I add the following, because it occurred in New York: H. Flynn was indicted in 1822 for an assault with intent to commit a rape on a child aged ten years. She said that he had taken her into the cellar, and kept her there for half an hour, between one and two P.M. At night, the mother found her linen discolored and stained with blood; and in a short time, symptoms, of what Dr. Brown, one of the witnesses, considered gonorrhœa, came on. The prisoner was put into Bridewell; and Dr. Walker, the attending physician, proposed an examination, which he resisted until forced thereto by the police. His linen was found discolored, and conclusive marks of disease appeared. On the trial, these facts were proved. Dr. Mott, for the prisoner, stated that he had been called upon two days after the examination by Dr. Walker, and found no marks of disease. He had also visited the child, and was

* I have obtained all my knowledge of this case from a review of "*Disertazione medico-forense riguardante la causa della Illmo. Sig. Achille Crespi, accusato di stupro immaturo. Autore Luigi Metaxa, publica professore, etc. Roma, 1824;*" in Chapman's Journal, vol. ix. p. 427.

uncertain whether it was the venereal or not—he deemed it impossible to tell at that age, and under the circumstances of the case. Dr. Walker was again called, and urged in explanation, that by using proper remedies, the most skillful physician might be deceived by the patient, and the disease be so far removed as not to be visible in even much less time than two days. This opinion was concurred in by Dr. Mott. The prisoner was found guilty.*

2. *Can a female be violated during sleep without her knowledge?* If the sleep has been caused by powerful narcotics, by intoxication, or if syncope or excessive fatigue be present, it is possible that this may occur; and it ought then to be considered, to all intents, a rape. In such cases, the quantity of

* Wheeler's Criminal Cases, vol. i. p. 74.

Diagnosis of Gonorrhœa, in accusation of Rape.—The following is quoted from a recent work on the venereal disease, by Mr. Acton, late externe at the Female Venereal Hospital, Paris, of which M. Ricord is the chief medical attendant: "Every tyro in medicine will at once distinguish what he calls a clap, by means of the symptoms above described, but such a person may not be aware, that a surgeon cannot always decide at once whether a man is suffering under a gonorrhœa or not, provided no discharge be observed, and the lips of the urethra be not inflamed and no stains seen on the linen. M. Ricord gives the following instance of the occasional difficulty. He was ordered by a magistrate to give an opinion, whether or not a prisoner, said to have violated a girl, was laboring under gonorrhœa. The accused presented no swelling of the lips of the meatus, on pressure, no discharge came from the urethra, and there existed no traces of any secretion on the shirt. When interrogated, he said that he had made water six hours previously to his examination. As M. Ricord had some suspicion, he ordered him to pass his urine at once, and desired one of the jailers to watch his prisoner; in six hours after, M. Ricord returned and then found undoubted marks of an existing gonorrhœa; the prisoner confessed that he had made water previously to the first examination, and had taken care to remove the secretion as soon as formed, by a piece of lint, which he had concealed for that purpose."

The reviewer justly doubts whether gonorrhœa can be present without an obvious vascular fullness of the mucous membrane. This should be examined with a lens. On everting the lips of the urethra, it is either seen florid, with punctuated redness, and a semi-abraded appearance, as if the epithelium were partially removed, or the veins of the mucous membrane are enlarged and tortuous. (*Medico-Chirurgical Review*, July, 1841.)

stupefying drugs administered may be so great as to render her unable, even if awakened by the violence, to withdraw from it. The proof of the crime is to be obtained from the injury sustained; from the symptoms attendant on the exhibition of narcotics, if they have been given, which will be noticed under the head of Vegetable Poisons; and finally, by (what may certainly happen) pregnancy occurring, and its term corresponding to the above era. As to natural sleep, I totally disbelieve its possibility with a pure person. The medical faculty of Leipsic, however, in 1669, decided that it might be accomplished. I prefer, however, the opinion of the juridical faculty of Jena, who, in a similar case, only allowed the exceptions already stated.* As to females accustomed to sexual intercourse, it has been supposed practicable; but if we do agree to that opinion, the circumstances certainly should be very corroborative. Some degree of skepticism may, I think, be permitted concerning it.†

3. *Does pregnancy ever follow rape?* On this question a great diversity of opinion has existed. It was formerly supposed that a certain degree of enjoyment was necessary in order to cause conception, and accordingly the presence of pregnancy was deemed to exclude the idea of a rape. Late writers, however, urge that the functions of the uterine system are, in a great degree, independent of the will; and that there may be *physical constraint* on those organs, sufficient to induce the required state, although the will itself is not consenting. We do not know, nor shall probably ever know, what is necessary to cause conception; but if we reason from analogy, we shall certainly find cases where females have con-

* The faculty of Leipsic decided, "dormientem in sella virginem inseciam deflorari posse." (Valentini Novellæ, pp. 30, 31.) In his Introduction, (page 2,) our author sneers at the ridiculous decision in this case: "Non omnes dormiunt, qui clausos et conniventes habent oculos."

† See, on this question, Foderé, vol. iv. p. 367; Capuron, p. 52; Smith, p. 401; and Brendelius, pp. 96 and 98-9. This last doubts its possibility, even in the exceptions stated in the text.

ceived while under the influence of narcotics, of intoxication, and even of asphyxia, and consequently without knowing or partaking of the enjoyment that is insisted on. I should, therefore, consider that pregnancy was not incompatible with the idea of rape, under the limitations already laid down. Several writers on this subject are, however, of a different opinion, and particularly Dr. Bartley, who goes so far as to recommend that pregnancy shall be considered a proof of acquiescence; and that in order to ascertain this, the punishment of the criminal be delayed till the requisite time.*

The law is in accordance with the opinion advanced above. Foderé mentions that there is a decree of the parliament of Toulouse, which decides in the affirmative, and that on the opinion of physicians who reported, "*Posse quidem voluntatem cogi, sed non naturum, quæ semel irritata pensi voluntate ferverescit, rationis, et voluntatis sensus amittens.*"† The English law anciently appears to have considered pregnancy as destroying the validity of the accusation. Dalton quotes Stamford, Britton, and Finch, in favor of this opinion; but later writers, and in particular Hawkins and Hale, question its correctness, and deny its being law.‡ "It was formerly supposed," says East, "that if a woman conceived, it was no rape, because that showed her consent; but it is now admitted on all hands, that such an opinion has no sort of foundation either in reason or law."§

* Bartley, p. 43. The scope of his argument is, that the depressing passions, such as fear, terror, etc., will prevent the necessary orgasm from occurring. Farr intimates a similar opinion, (page 43,) and so does Meierius, the editor of Brendel, (note, p. 99.) Those who entertain the belief maintained in the text, are Capuron, p. 57; Foderé, vol. iv. p. 369; Metzger, pp. 257, 486.

"It is not perhaps altogether impossible," says Dr. Good, "that impregnation should take place in the case of a rape, or where there is a great repugnancy on the part of the female; for there may be so high a tone of constitutional orgasm as to be beyond the control of the individual who is thus forced, and not to be repressed even by a virtuous recoil, or a sense of horror at the time." (Good's Study of Medicine, vol. iv. p. 100.)

† Foderé, vol. iv. p. 360.

‡ Burns' Justice, art. *Rape*.

§ East's Crown Law, vol. i. p. 445. In connection with this, it has been

A few words are necessary on the *crime against nature*, and they may properly be introduced here.* It may be required to examine the individual on whom it has been committed. If without consent, inflammation, excoriation, heat and contusion will probably be present. The effects of a frequent repetition of the crime, are a dilatation of the sphincters, ulcerations on the parts, or a livid appearance, and thickening. It has been suggested, that secondary symptoms of lues might be mistaken for these; but I am hardly of this opinion. No man, however, ought to be condemned on medical proofs solely. The physician should only deliver his opinion in favor or against an accusation already preferred.†

The punishment of this crime has always been signal. Death was prescribed by the Jewish and Roman laws, and is still by the English; and where both consent, provided the one on whom it is committed is above the age of fourteen, both are punished. In this State, it was also formerly made capital, but now is changed to imprisonment for life.

inquired whether pregnancy may follow defloration? I apprehend that this is to be answered in the affirmative, although the instances are comparatively rare. It is quite common, in cases of seduction, to swear that there has been only a single coitus; and although this may be doubted in some, yet in others there is hardly just ground to disbelieve a solemn affirmation. It also has occasionally, I presume, occurred to most physicians, on comparing the term of gestation with the period of marriage, to render it probable that the pregnancy must have happened at the earliest possible term.

“Ce qui rend un premier coit infructueux, (says Metzger, p. 486,) c'est à mon avis, la précipitation de l'homme, bien plutôt que la douleur qui suit la défloration. Knobel est également de cet avis.”

* The following extract is curious, and for want of a better place, I subjoin it here: “De tous les crimes contre les personnes, l'attentat à la pudeur est celui pour lequel l'influence des saisons est le plus évidente. Sur 100 crimes de cet espèce, on en compté en été, 36; au printemps, 25; en automne, 21; et en hiver, 18 seulement.” (Guerry, *Essai sur la Statistique Morale de la France*. Paris, 1833, page 29.)

† Zacchias, vol. i. p. 382; Foderé, vol. iv. p. 374; Mahon, vol. i. p. 138.

NOTE.

Alleged Rape.—I am indebted to the kindness of Dr. D. B. Bullen, of Cork, for the narrative of the following case. He was pleased to transmit a copy of it, published in the "Dublin Medical Press," of March 25, 1840, through my brother, Dr. John B. Beck, of New York.

At the Cork spring assizes of 1838, two brothers, of the name of Callaghan, were tried before Sergeant Greene, upon a charge of having violated and otherwise abused a woman of the name of Sarah Fleming. The accused were respectable persons.

The prosecutrix testified that she was married, had a child in the house of industry, and two others (girls) elsewhere. She had been acting in the capacity of nurse-tender in the North Infirmary, from which place she was returning on the evening previous to the morning of the alleged outrage, when she was accosted on the North Bridge by a man, who told her, among other things, that her sister was coming from Clonmel, and was taken ill on the road, and that he was looking for her. Hearing this, the witness accompanied the man to several places, and he entered a house, from which returning, he said, "She is not there." They walked together until they arrived at Mallow Lane, when the clock having struck twelve, she became alarmed, and said she wished to be at her lodgings. She, however, remained with him, as it appears, a half an hour, and during all this time his language, as she stated, was proper. A woman now came up, and said: "Is that you, Bill?" to which the man replied: "This is my sister," adding, "this woman (witness) wants to sleep with you;" and she said, "Yes, and welcome." After some further conversation, the clock struck one, when another man came up, and they whispered together. They soon made off, and, arriving at a lane near Dominick Street, the first man pushed her in, upon which two other men came up, one of them disguised with a cap, which nearly covered his face. She thought of the Callaghans at this time, one of them being lame. Becoming alarmed, she clung round the first man, when Patrick Callaghan knocked her down. Here the prosecutrix described the outrage, which she said was participated in by all three. She swore also, that not only had the prisoners committed the offence charged, but that they had subsequently treated her in a manner the most brutal. They then tied her up to the wall, leaving her exposed; and that in that state she was found in the morning; that she had lost her senses, which did not return to her until she found herself in the infirmary.

The principal facts elicited on her cross-examination were, that she admitted having acted improperly with three different men. The present was the third time she had appeared against the Callaghans in a court of justice; the first time was when she prosecuted Patrick for an assault upon her daughter, a child eleven years old, when he was convicted and

sentenced to six months' confinement. She had been offered money as an inducement not to prosecute, but she refused it. The next prosecution was for an assault on herself at Mallow Lane, when they were acquitted. During the assault she neither screamed nor bawled. She could not do either, as they fastened a rope around her neck and stuffed her mouth with hay.

Nicholas Duggan deposed, that on the morning in question, between four and five o'clock, on proceeding from his own house, he saw the prosecutrix in the position described in her own evidence; that he met a woman lower down in the lane, whom he begged for God's sake to relieve the prosecutrix from the state in which she was. When released, she whispered the woman to send for Sergeant Robinson.

Constable Robinson described the condition of the prisoner. He had her removed to the infirmary, and took her statement. He then proceeded to arrest the Callaghans, at seven o'clock, but did not obtain admission into their house for half an hour. Patrick appeared pale and frightened. He took them into custody and gave them in charge of the police. One of the brothers said: "I suppose this is Sarah Fleming again."

The medical testimony is thus given by Dr. Bullen: When this woman was brought to the North Infirmary, on the 22d of September, she continued for some time in a state of apparent insensibility. Her mouth was stuffed with a quantity of dry grass, and a piece of cord was firmly tied across it in the manner of a gag. On her chest were slight contusions, and the wrists were firmly bound together with pieces of thick whip-cord. On removing her clothes, the neck of a common black bottle fell from between her thighs upon the floor. When questioned, after some time, as to the cause of being found in this situation, she told pretty nearly the same story as detailed at the trial, with some particulars which did not appear in her evidence. She said that after each of the three Callaghans had violated her, they forced either a stick or some other hard substance, and afterwards the neck of a common black bottle, into the vagina; that they stuffed her mouth with grass and gagged her; that they bound her wrists together, and, having tied her clothes above her head, suspended her by the cords from the railing of the window where the watchman found her. Dr. Howe, under whose care she was placed, made a strict examination of her person a few hours after being brought into the hospital. There was no mark of bruises upon her thighs, nor any appearance of violence about the pudenda. Considerable indentations had been left about the wrists where the strings had been tied, and when a hand was applied to the contusions on her chest, she screamed and appeared to suffer great pain. She expectorated bloody saliva in quantity, and with consummate art developed the several symptoms which may be expected to follow the injuries she pretended to have received.

Dr. Howe distrusted her story from the commencement, but the consistent and collected manner in which she told it, and the extraordinary facility with which she simulated the appearances of disease, made a strong impression in her favor on the minds of many. It was resolved to seem to place implicit reliance on the truth of everything she said, and to treat her with the greatest commiseration.

About ten days after her admission into the hospital, a little before the hour of visit, a stream of water was seen flowing from under her bed; on being asked what was the matter, she said, "she had lost all power over the bladder, having felt it tear when the Callaghans forced the bottle into her body." Dr. Howe immediately passed the catheter into the urethra, and, making an examination per vaginam, found the parts in a natural and healthy state. Two days after this occurrence, she began to expectorate bloody saliva, spitting upon the floor so as to attract attention, and complained of severe pain in the chest, the consequence, she said, of the injuries she received on the night of the assault. Her mouth being examined, it was evident that her gums had been scratched, and that the bloody saliva had been produced by sucking them.

She was now taxed with deceit, and accused of having invented a false and horrible tale, with intent to swear away the lives of three innocent men. She listened with an air of calm resignation, and replied with gentleness, "God forgive you, gentlemen; wait awhile, and you shall see how you wrong me." That night, when it became dark, she found her way into the Lock Ward of the infirmary, from which she was turned out by the nurse-tender. The evening after, Dr. Bullen (who is a surgeon of the infirmary) paid a late visit to the hospital, and missing Sarah Fleming from her bed, he searched for her, and found her again in the Lock Ward; being asked what she wanted there, she appeared much confused, and made an equivocating answer. In a week after having been reproached as an impostor, and subsequent to her nocturnal visits to the Lock Ward, she requested Dr. Howe to examine her, as she felt some soreness about the vulva. He did so, and found venereal chancres, apparently in the first state of formation. Hearing the character of these sores pronounced, the woman triumphantly exclaimed: "See, gentlemen, how you wronged an innocent woman; as God may judge me, I got this disorder from the Callaghans the night they assailed me." Information of this circumstance was immediately conveyed to the prisoners, who had been confined in prison since the 22d, and they were examined by the late Dr. Evans, who gave a certificate that neither of the three brothers presented the slightest trace of the venereal disease.

As the testimony of Dr. Howe, and the certificates of Drs. Evans and Hevenden, both since dead, showed that no indication of violence to justify the charge of it had been discovered, the prisoners were acquitted. Sarah Fleming was committed to the city jail, upon an indictment for perjury.

In May, immediately following these March assizes, Dr. Bullen took the medical charge of the prisoners in the city jail, for his friend, Dr. Nugent, who had gone to London. He found Sarah Fleming in the infirmary of the prison, confined to bed, in consequence, as she asserted, of the injuries she had received on the night when assaulted by the Callaghans. When she was informed that she was to be placed under his care, she broke out into the most violent invective and abuse, and said, "that as he had helped to ruin her character in the North Infirmary, he was now come to persecute her to death in the prison." After some days, she appeared really ill, and he succeeded with some difficulty in calming her indignation. She seemed to be suffering under some very severe abdominal disease. There was great swelling and tenderness of the whole belly, but more especially above the pubis. The stomach was extremely irritable, immediately rejecting everything she swallowed. Her pulse 130, and very small; tongue foul and parched; skin hot and dry. Dr. Bullen asked to see her alvine evacuations, which fortunately had been kept, and found them perfectly natural. On seeing him smile, she said quickly, "You may smile, but look at my urine." The urine was abundant, but heavily loaded with ropy mucus, and deeply tinged with blood. In the bottom of the chamber-pot was a very curious looking sediment, which he found to consist of powdered mortar and ashes. He inquired if she was menstruating, and found she was not; but the nurse-tender told him that there was a discharge from the vagina of an extremely offensive character, and her linen was marked with a muco-purulent discharge. The appearance of the urine was both perplexing and suspicious. On the one hand, the ropy mucus and blood mixed with it, and the tenderness on pressure; and on the other, the powdered mortar and ashes. Dr. Bullen directed her bed to be placed in the centre of a large room, removed from the walls and fire-place. He ordered her to be closely watched, and all her discharges to be carefully removed and put aside for examination. The next day she was alarmingly ill; the tension and pain of the abdomen had much increased. She could not bear the slightest pressure over the pubis, and the discharge from the vagina was much increased and very offensive. In spite of the most determined resistance on her part, he made an examination per vaginam, and found it completely blocked up with a large solid body which, with much difficulty he extracted, and found to be a *large rough paving stone!* The miserable woman turned to him and exclaimed, "God forgive you; that is the stone the Callaghans forced into my body, and the doctors at the infirmary could not make it out."

Mr. Dillon, Demonstrator at the Royal College of Surgeons, Dublin, had accompanied Dr. Bullen that day to see the prisoner, and assisted him in removing the stone, which weighed seven ounces. It must have been lodged for some time in the vagina, as it was thickly coated with a white calcareous incrustation and layers of thickened mucus.

For more than a week her life was in imminent danger. High inflammation of the uterus and coats of the bladder, involving the peritoneum, took place, accompanied by deep ulceration and sloughing of the mucous membrane of the vagina; and for some days the case had every appearance of terminating in recto-vaginal fistula.

The infirmary of this prison opened into a garden, to which the sick prisoners had access, and in this garden were heaps of stones similar to that taken from the prisoner. For the three months during which Sarah Fleming remained under Dr. Bullen's care, she continued perseveringly to simulate various diseases with great perseverance and remarkable fidelity of execution; all evidently with the design to multiply proofs of the injuries received from the Callaghans.

At the ensuing August assizes she was tried for perjury, convicted, and sentenced to transportation. "Mr. Murphy, governor of the city jail, informed me afterwards, that from the moment of conviction, the demeanor of this woman became completely changed, and that the report of her conduct on the passage to New South Wales was extremely favorable."

Remarkable as is this case for the malignant perseverance of the accuser, and improbable as the occurrence of a similar attempt may seem, yet it should not be forgotten that the lives of the Callaghans might have been forfeited, *had not an immediate examination* been made by Dr. Howe. Not only in Ireland, but I think in some parts of this country, accusations of rape are increasing. They are very readily preferred, and they depend for proof on the testimony of the accuser alone. Should it not be required that an early examination be made in these cases by a medical practitioner, and in default of a speedy application for that purpose, that the charge be proportionably discredited?

[*Rape on persons under the influence of anæsthetic agents.*—Since the use of anæsthetic agents, (sulphuric and chloric ether, chloroform, and amylene,) by inhalation, has entered into the practice of medicine, surgery, and dentistry, several instances have occurred in which it has been charged that rape was committed upon persons while under the influence of these agents. The anæsthetic agent may be administered ostensibly for a proper purpose: for example, to obviate suffering from a painful dental operation, with a predetermination on the part of the offender to commit the crime; or, having been administered for such a purpose, the offence may be committed without having been premeditated; but in either case, both in a moral and legal sense, the offence is rape, if the act be perpetrated when the injured party has neither the ability to give her consent nor to offer resistance. The physiological effects of anæsthetic inhalations are highly important in relation to this subject. Without going into a full consideration of these effects, for

which the reader is referred to special treatises or works on the *materia medica*, it may be assumed that—*first*, a state of insensibility may be induced, rendering the person as completely unconscious of the violation of her chastity at the time as if she were fully narcotized by opium or any stupefying drug; *second*, she may be rendered partially unconscious, or thrown into a state in which she has no adequate appreciation of the outrage, although more or less cognizant of its committal; and *third*, the power of opposition, either by words or actions, may be taken away or impaired, even if the faculties of the mind are retained sufficiently to understand the intention of the criminal party. In whichever of these conditions the person may be when the act is committed, the criminality of the act is of course the same; but, in view of the second and third conditions, in which the consciousness is not lost, the question arises, how far is it proper and safe to admit the testimony of the person believing herself to have been outraged, as to the circumstances which transpired while partially under the influence of an anæsthetic agent? Observation shows that hallucinations and delusions of various kinds are frequently experienced while under the influence of anæsthetic agents, in a degree falling short of insensibility. In fact, no one, who has witnessed repeatedly the employment of these agents, can have failed to perceive the evidence of this in the language and actions which often accompany their use. It is, moreover, observed that these hallucinations and delusions may remain after the immediate effects of these agents have passed off, so that it is sometimes difficult for the person to be persuaded that events purely imaginary did not actually transpire. Still further, it is well established by observation, that in some cases excitement of the amorous propensity is an effect of these agents, and persons have admitted, after recovering fully their mental faculties, that they supposed themselves to be engaged in the act of coition. These considerations leave room for great doubt concerning the reliability of testimony based on the cognizance of events while under the influence of anæsthetic agents, unless this testimony be sustained by corroborative evidence.

A case of much interest and importance, in connection with the point just stated, occurred in Philadelphia, in 1854. The party charged with rape was a respectable dentist in that city. The person claiming to have been violated was a young lady of unimpeachable character, who was under an engagement of marriage. She testified that she went to the office of the dentist, who had engaged to plug one of her teeth. The operation proving painful, he gave her the choice between having something put into the tooth to destroy the nerve, and inhaling ether. She chose the latter. After inhaling the ether from a small napkin for some time, she felt dizzy, cold, and numb, but did not lose her consciousness. From this time her testimony embraces a detailed account of all that

transpired during a period somewhat less than two hours. According to this testimony, the dentist, after taking certain indelicate liberties, raised her clothes, passed his arm around her under her clothes, drawing her to the edge of the dentist's chair in which she was sitting, and effected entrance into her person. During this time her eyes were closed; she did not know what was his position nor witness any exposure on his part. She was confident of the penetration of her person, but only from a sense of pain in the part. She declared that she was unable either to cry out or to resist. After he had left her and gone to the washstand, she opened her eyes, and saw that her clothes were raised. She immediately closed her eyes again. He returned to her side, put down her clothes, lifted her into the seat, and in a few moments told her it would be necessary to extract a tooth. She expressed fear of being hurt, and he gave her more ether and extracted the tooth. He afterwards assisted her to rise, and led her to a rocking-chair. He then left the room for a few moments, and returned with another lady. In a short time the witness left the house, having previously made an appointment to come again on the following Monday, this occurrence taking place on Friday. She did not in any manner intimate to the dentist her knowledge of the treatment which she had received. After leaving the house she walked to the residence of an intimate friend, stopping on the way at a confectioner's and getting some ice-cream. She dined with the family, rode out in the afternoon with them, and in the evening communicated, for the first time, what had taken place, to the lady of the house where she stayed. The menses appeared on that evening, which was at the regular period.

It does not appear from the testimony that there was any sense of local injury. No subsequent pain or soreness was complained of. No examination was made of her person by herself on that day. An examination by a physician was not made at any time. She observed nothing on her garments prior to the appearance of the menses.*

The dentist was found guilty by the jury, and sentenced to four years and six months imprisonment.

The proof that a rape was committed in this instance rested wholly on the testimony of the complainant, concerning what transpired while she was, according to her own statement, sufficiently under the influence of ether not to be able to utter a cry or make any resistance. The case excited much discussion in the medical journals throughout the country, and the opinion was quite general that the accused should not have been convicted upon this testimony. Irrespective of the possibility of a deliberately false accusation, the well-ascertained occasional physiological effects of anæsthetic agents which have been mentioned, render, it can

* For a fuller account of this testimony, see Wharton and Stillé, p. 337.

hardly be doubted, this case a very unsafe precedent, should cases of a similar character unhappily again occur.

There is one feature of this case which deserves to be particularly noticed. The only testimony of the witness as to the fact of penetration was, that she felt pain at the time in the private parts. A certain amount of penetration with the male member is necessary to constitute rape. Assuming the correctness of all the remainder of the statements, should the simple fact of pain having been experienced in the private parts be deemed adequate evidence that penetration to any extent with the male member had been effected, or even attempted? It would be easier to sustain a negative than an affirmative answer to this question.—A. F.]

CHAPTER VI.

PREGNANCY.

1. Laws of various countries concerning the presence of pregnancy in civil and in criminal cases. 2. Signs of real pregnancy—reasons of the difficulty of ascertaining it in medico-legal cases. Notice of the principal signs: Enlargement of the abdomen—diseases that may produce this: Appearance of the areola; Suppression of the menses—circumstances that may mislead with this: Nausea, etc.; Motion of the fœtus; Quickening—explanation of this term—variety as to its occurrence: Examination of the state of the uterus—of its neck by the speculum: Examination the vagina; Condition of the blood, urine, and salivary glands; Auscultation—directions for its application. Impropriety of relying on any single proof of pregnancy—extra-uterine pregnancy—pregnancy complicated with dropsy. Concealed pregnancy—pretended pregnancy: Circumstances to be noticed—the age of the individual—state of the menstrual function—variety in the period of its commencement and its return. Diseases that may be mistaken for pregnancy—moles—hydatids—physo-metra, etc. 3. SUPERFÆTATION. Cases that have been deemed instances of it: A blighted and a perfect fœtus—different colored children—children born at considerable intervals. Explanation of these cases by the opponents of the doctrine. Double uteri. Application of superfætation in legal medicine. 4. Whether a female can become pregnant, and remain ignorant of it until the time of labor: Cases in which this has been deemed possible.

FEW questions occur in legal medicine of greater importance than the one we are about considering. On its proper decision may depend the property, the honor, or the life of the female. It will probably lead to a better understanding of this subject, if we notice—

1. The laws of various countries relating to the presence of pregnancy.

2. The signs of real pregnancy, together with the best mode of ascertaining concealed or pretended pregnancy.

3. The arguments and proofs in favor and against the doctrine of superfœtation. And,

4. Some questions arising out of the previous examination.

I. *Of the laws of various countries which relate to the presence of pregnancy.*

The Roman law exempted a condemned female from punishment, if she was pregnant, until after her delivery—"quod prægnantis mulieris damnatæ pœna differatur quoad pariat."

There are two leading cases in the English or common law, which may require a knowledge of the signs of pregnancy. One is a proceeding at common law, "where a widow is suspected to feign herself with child, in order to produce a supposititious heir to the estate. In this instance, the heir presumptive may have a writ *de ventre inspiciendo*, to examine if she be with child or not; and if she be, to keep her under proper restraint until delivered; but if the widow be, upon due examination, found not pregnant, the presumptive heir shall be admitted to the inheritance, though liable to lose it again on the birth of a child within forty weeks from the death of a husband."

The interest that cases of this nature sometimes occasion, and the precautions that have been taken in England, may be learned from the following report. Sir Francis Willoughby died, seised of a large inheritance. He left five daughters, (one of whom was married to Percival Willoughby,) but not any son. His widow, at the time of his death, stated that she was with child by him. This declaration was evidently one of great moment to the daughters, since if a son should be born, all the five sisters would thereby lose the inheritance descended to them. Percival Willoughby prayed for a writ *de ventre inspiciendo*, to have the widow examined; and the sheriff of London was accordingly directed to have her searched by twelve women, etc. Having complied with this order, he returned that she was twenty weeks gone with child, and that within twenty weeks, *fuit paritura*. "Whereupon

another writ issued out of the common pleas, commanding the sheriff safely to keep her in such an house, and that the door should be well guarded; and that every day he should cause her to be viewed by some of the women named in the writ, (wherein ten were named,) and when she should be delivered, that some of them should be with her to view her birth, whether it be male or female, to the intent there should not be any falsity." And upon this writ the sheriff returned, that accordingly he had caused her to be kept, etc., and that such a day she was delivered of a daughter.*

The other instance is evidently borrowed from the Roman law as quoted above. When a woman is capitally convicted, and pleads her pregnancy, though this is no cause to stay the judgment, yet it is to respite the execution till she be delivered. "In case this plea be made in stay of execution, the judge must direct a jury of twelve matrons, or discreet women,

* Croke's Elizabeth, p. 566. See also, in the matter of Martha Brown, *ex parte* Wallop, in Brown's Chancery Cases, vol. iv. p. 90; *ex parte* Aiscough, Peere Williams' Reports, vol. ii. p. 591; *ex parte* Bellet, Cox's Chancery Cases, vol. i. p. 297. Another case of the same nature has very recently occurred in England. Mr. Fox, of Uttoxeter, died, aged 60, in May, 1835, leaving a widow to whom he had been married about six weeks. Shortly afterwards, she announced herself with child, and the presumptive legatee applied for the writ *de ventre*. He did not ask for the old writ of a mixed jury of matrons and men, but only that she should be examined by some professional man of his own selection. The widow opposed it, but said she was willing to answer *any questions*. The surgeon who had attended Mr. Fox, swore that he had examined Mrs. Fox, and believed her to be pregnant. He also expressed his apprehensions, if an additional examination was persisted in, of peril to her health, and to the life of the unborn infant.

The vice-chancellor (in whose court this case occurred) let it stand over for a month, but as there was then no arrangement between the parties, he directed the master to appoint two matrons, who, with a medical man on each side, should visit Mrs. Fox, once a fortnight, giving her two days' notice of each visit. At the end of the usual period, she was delivered of a son and heir. (London Med. Gazette, vol. xvi. p. 697; vol. xvii. p. 191.)

N. B. If the parties here be the same as those in the case of Marston v. Roe, on the demise of Fox, (8 Adolphus and Ellis Reports, p. 14,) and I have no doubt of it, then this child must at least have been prematurely born. John Fox married, February 21, 1835, and died May 11. The child was born October 16, 1835, equal to 240 days.

to ascertain the fact, and if they bring in their verdict, *quick with child*, (for barely *with child*, unless it be alive in the womb, is not sufficient,) execution shall be stayed generally till the next session, and so from session to session, till either she is delivered, or proves by the course of nature not to have been with child at all.”*

“Here,” says Dr. Paris, “the law of the land is at variance with what we conceive the law of nature, and it is at variance with itself; for it is a strange anomaly, that by the law of real property, an infant in *ventre sa mere*, may take an estate from the moment of its conception, and yet be hanged four months after for the crime of its mother.”†

In a recent case, however, (*Regina v. Wycherley*, 8 Carington and Payne, p. 262,) I find a new definition laid down. The defendant was found guilty of murder. She urged in stay of execution, that she was pregnant. A jury of matrons was impannelled, and they came into court and asked the assistance of a surgeon. The judge (Baron Gurney) granted it, and in his examination of the surgeon, he said, “*quick with child*” is having conceived. “*With quick child*” is when the child has quickened. The jury found a verdict that the prisoner was not quick with child.

In Scotland, a pregnant female is entitled to have sentence delayed; or if it has passed, to be respited till her delivery takes place; and that equally whether *she be quick with child or not*.‡

* Blackstone, vol. iv. pp. 394, 395.

† Paris, vol. iii. p. 141.

‡ Alison's Practice of the Criminal Law of Scotland, p. 654. The English courts will also interfere, when a pregnant female has been imprisoned. Thus, in the case of Elizabeth Slymbridge, (Croke's James, 358,) “upon suggestion that she had been imprisoned for divers weeks, and was with child, and would be in danger of death, if she should not be enlarged,” Sir Edward Coke, the chief justice, admitted her to bail, to prevent the peril of death to her and her infant; and in giving his opinion, he cites a similar case, which happened in the fortieth of Edward III. The editor remarks, that *these cases are cited as extraordinary instances*. The last case is mentioned in Coke Littleton, 289, a. The record states: “Quia eadem Elene pregnans fuit, et in periculo mortis, ipsa dimittitur per manucaptionem, etc., ad

Foderé and Capuron appear to have examined every law in the French code which has a bearing on this subject. The civil code, sect. 185, declares that no female shall be allowed to contract marriage before the age of fifteen full years. Nevertheless, such marriage shall not be dissolved, 1, when six months have elapsed after the female, or both of the parties, have attained the required age; and 2, *when the female, although not of the required age, has become pregnant before the expiration of six months.* The penal code, sect. 27, also declares that if a female, condemned to die, states that she is pregnant, and if it be proved that she is so, she shall not suffer punishment until after her delivery. Several other laws are mentioned, which, by implication, may be referred to this subject, but it is not necessary to state them. The above are the important ones now in force in France.* I may, however, add, that the law last quoted was in existence, and has been acted upon since the year 1670, in that country.

The following is a recent enactment in the State of New York, intended to take the place of the common law:—

habendum corpus, etc.” And recently, legal protection has been extended to witnesses who may be pregnant. In an act passed 1 William IV., (chapter xxii.,) and entitled “An act to enable courts of law to order the examination of witnesses upon interrogatories and otherwise,” it is directed, among other things, that no examination or deposition shall be read in evidence, unless it shall appear to the satisfaction of the judge that the examinant or deponent is unable, from permanent sickness, or other permanent infirmity, to attend the trial. In the case of *Abraham v. Newton*, (8 Bingham’s Reports, 274.) the question came up, whether pregnancy and imminent delivery was a cause for examination under this act. It was decided that it might be; but it must be shown, by the affidavits of competent persons, that the delivery will probably happen about the time fixed for the trial of the cause.

* Foderé, vol. i. pp. 421 to 432. A law, passed on the 23d Germinal, year 3, (1795,) was still more mild in its provisions. It prescribed that no woman, accused of a capital crime, *should be brought to trial, unless it was properly ascertained that she was not pregnant.* In conformity with this, the court of cassation reversed several decisions of inferior criminal courts, where it appeared that the female had not been properly examined; and it seems, indeed, that it demanded proof, that in such cases the examination had always been made. (Ibid., pp. 428 to 431.) This is probably abolished, as no mention is made of it in the code now in force.

"If a female convict, sentenced to the punishment of death, be pregnant, the sheriff shall summon a jury of six physicians, and shall give notice to the district attorney, who shall have power to subpoena witnesses. If, on such inquisition, it shall appear that the female is quick with child, the sheriff shall suspend the execution, and transmit the inquisition to the governor. Whenever the governor is satisfied that she is no longer quick with child, he shall issue his warrant for execution, or commute it, by imprisonment for life in the State prison."*

II. *Of the signs of real pregnancy, and of concealed and pretended pregnancy.*

In the ordinary practice of medicine, little difficulty usually occurs in ascertaining the existence of pregnancy. The female, when she consults a physician, is frank in her avowal of the symptoms present, and from her narrative an opinion sufficiently accurate can generally be formed. The reverse, however, takes place in legal medicine. Here pregnancy may be CONCEALED by unmarried women, and even by married ones under certain circumstances, to avoid disgrace, and to enable them to destroy their offspring in its mature or immature state. It may also be PRETENDED, to gratify the wishes of relatives, to deprive the legal successor of his just claims, to extort money, or to delay the execution of punishment.

Neither of these can be properly investigated without recurring to the signs of real pregnancy, and this remark deserves particular notice, since, with all the light that modern science affords, serious errors have, notwithstanding, been committed. The female has an interest, and a wish to deceive the examiner, and her testimony, which in ordinary cases is so much relied on, is here suspicious, or not to be credited.

Mahon has suggested a useful division of the signs of preg-

* Revised Statutes, vol. ii. p. 658. In China, "torture and death cannot be inflicted on a pregnant woman, until one hundred days after her confinement." (The Chinese, by J. F. Davis, vol. i. p. 229.)

nancy, viz., those which affect the system generally, and those which affect the uterus.*

The changes observed in the system from conception and pregnancy, are principally the following: Increased irritability of temper, melancholy, a languid cast of countenance, nausea, heart-burn, loathing of food, vomiting in the morning, an increased salivary discharge, feverish heat, with emaciation and costiveness, occasionally depravity of appetite, a congestion in the head, which gives rise to spots on the face, to headache, and erratic pains in the face and teeth. The pressure of increasing pregnancy occasions protrusion of the umbilicus, and sometimes varicose tumors, or anasarca swellings of the lower extremities. The breasts also enlarge; an areola or brown circle is observed around the nipples, and a secretion of lymph, composed of milk and water, takes place.

All of these do not occur in every pregnancy, but many of them in most cases.

The changes that affect the uterus, are a suppression of the menses. These cease returning at their accustomed period. An augmentation of the size of the womb. This is not perceptible until between the eighth and tenth weeks. At that time, the fœtus, with the surrounding membranes, and the waters contained in them, so enlarge it, that it may be felt lower down in the vagina than formerly; nor does it ascend, until it becomes so large as to rise out of the pelvis, and this is accomplished at about the fourth month.† In the intermediate space, an examination *per vaginam* will discover the uterus to be heavier and more resisting; and by raising it on

* Mahon, vol. i. p. 142. In considering this subject, I rely mainly on the opinion of men skilled in the science of midwifery, and accordingly have particularly noticed the works of Dr. Kennedy, (Obstetric Auscultation;) Dr. Gooch, (Diseases of Women, chapter iii., and Midwifery;) Dr. Davis, (Obstet. Medicine;) Dr. Blundell, (Lectures;) Dr. Denman; Dr. Hamilton; Dr. Dewees; Dr. Ashwell; Dr. Ryan; Mr. Hogben; Professor Capuron; Dr. Montgomery, (Cyclopedia of Practical Medicine, art. *Pregnancy*;) Dr. Merriman; Dr. Churchill; Dr. Dubois; Dr. Rigby.

† "In pregnancy, the uterus does not rise out of the pelvis before the third month." (Gooch, Diseases of Women, p. 209.)

the finger, this indication will be particularly remarked between the third and fourth months. "In general, in the fourth month the fundus of the uterus may be felt, especially in a thin person, above the anterior wall of the pelvis." The enlargement continues, and becomes visible during the fifth month; it rises to half-way between the symphysis pubis and the umbilicus; in the sixth month, (seventh, according to some authors,) it is as high as the umbilicus; at the seventh, half-way between the umbilicus and scrobiculous cordis; and at the eighth it has reached the latter, its highest elevation.* A short time before delivery, it somewhat subsides.† About the middle of the pregnancy, or between the seventeenth and twenty-second weeks, the female feels the motion of the child, and this is called *quickenings*. Its variations as to time will be hereafter noticed. To these should be added the intra-uterine sounds furnished by the foetal heart, and the utero-placental circulation, which are more reliable than any yet enumerated. The manner of detecting each, the period of pregnancy when first audible, and their respective value, will be subsequently described. The vagina is also subject to alteration, as its glands throw out more mucus, and apparently prepare the parts for the passage of the foetus.

These, as now stated, are the signs of pregnancy usually enumerated. It would not, however, be doing justice to the subject, if the reader were left to suppose that all or most of them are the invariable attendants on pregnancy. Some

* I have adopted the *periods* stated by Dr. Montgomery for these changes. It is proper, however, to add that some writers on midwifery postpone the last three to a month later in each case. [They are altogether uncertain; the rise of the uterine tumor varying with the laxity or tension of the abdominal wall.—C. R. G.]

† "The uterus, at the end of the third month, generally measures, from the mouth to the fundus, above five inches, one of which belongs to the cervix; on the fourth, it measures five inches from the fundus to the beginning of the neck; in the fifth, about six inches from the cervix to the fundus. In two months more, it measures eight inches, and at the ninth month, ten or twelve inches, and is oviform in its shape." (Ashwell on Parturition, p. 137.)

may accompany diseases, others may be altogether wanting in a state of true pregnancy. It will, therefore, be proper to examine the more important signs in detail.

1. *Of the expansion or enlargement of the abdomen.*—This sign is not visible during the first months; and after that period, it may be concealed for a length of time by various means, such as the peculiar disposition of the dress, and the confinement of the abdomen by stays. Formerly, fashion lent its aid to this deception. As early as 1563, satires were written in France on the articles of dress that were used to increase the size of the female figure, both before and behind; and in 1579, in the reign of Henry III., these were in general use. Cotemporary writers considered them, and not without great reason, as subservient to, and productive of great depravity in manners, and particularly for the concealment of pregnancy.* Another circumstance that may lead to error, is the variety that exists with respect to corpulence or peculiarity of form. This, in some instances, conduces to render the question doubtful, so much, indeed, as in some cases to exhibit hardly any tumor. Waiving these, however, we observe that this sign is generally observed at the end of the fourth month. It then remains to inquire whether the enlargement is the result of pregnancy or of disease. If the former, it has generally some peculiarities which serve to distinguish it. The enlargement is progressive from the fourth month to the middle of the ninth or thereabouts, and by the fifth month it can scarcely pass unnoticed, particularly if the female be standing. Recollect, also, that the uterus lays in front of the abdominal cavity, and occupies the lower and middle parts. It grows from below upward, and remains for a long time flattened at its sides, and a little puffy beneath the ribs, while in front it is hard and prominent.†

But the enlargement may originate from disease, from sup-

* British Critic, vol. vii. p. 539.

† Gooch, Blundell, Velpeau. "I will give you a little advice as to the unmarried class. Never give an opinion till six months have elapsed since the last menstruation. Do not believe one word they say. Listen to them

pression or retention of the menses, tympanites, the various species of dropsy, or disease of the liver and spleen.*

In retention of the menses, particularly if accompanied with imperforate hymen, the abdominal enlargement is remarkably similar to that of pregnancy. It occupies the anterior part of the abdomen, and presents the same character as to resistance and hardness as is given by the pregnant uterus. It also gradually ascends, and is accompanied by no distinct fluctuation, as in ascitic dropsy. Pain and vomiting may also be present. On the other hand, however, no motion can be felt by the examiner; and, above all, the fact of retention will appear on inquiry, and the hymen generally be found distended.† So, also, if this last be not present. The symptoms occurring from time to time should be carefully studied.‡

as you would to a jockey praising his horse. *Never rely upon the evidence of their tongues, but that of their —.*" (Gooch's Midwifery, p. 103.)

* An enormously enlarged kidney was for some time mistaken for pregnancy, and afterwards for encysted dropsy. Orfila, *Leçons*, third edition, vol. i. p. 282, quoted from the History of the Royal Academy of Sciences, 1732. Stercoraceous accumulation, mistaken for pregnancy, (*Journal de Médecine et de Chir.*, November, 1850;) *Medical Library and News*, vol. ix. p. 79.

† Davis' *Obstetric Medicine*, p. 106. He gives a long list of references to cases of imperforate hymen.

Dr. Montgomery quotes others, and mentions one that came under his own notice, in a girl of seventeen. The abdomen was enlarged, the uterus could be felt as high as the umbilicus, the breasts were painful; there was occasional vomiting, with pain in the back and along the thighs. On passing the catheter (there was an inability to pass the urine) an imperforate hymen was discovered. (*Signs of Pregnancy*, p. 51.)

‡ An instructive case, showing the doubts which envelop some cases of suppression of the menses, and the equivocal symptoms to which it gives rise, is related by Dr. Dewees, in *Chapman's Journal*, vol. iv. p. 126. The female had not menstruated for a year—her breasts swelled—she had nausea and vomiting in the morning, and Dr. Dewees thought, on examination, that he perceived motion. As the female was unmarried and irreproachable, proper medicines were prescribed, which relieved her only for a time. Finally, on treating it as a case of ascites, there was manifest improvement, and the disease ended with a sudden gush of fluid blood from the vagina.

In tympanites, the abdomen is hard and elastic, and sounds like a drum when pressed.

Dropsy, also, when not encysted, is marked by its peculiar characteristic and local symptoms. This swelling appears general over the abdomen, and is not confined to the space over the pubis. "It is soft to the touch, wanting the solid and consistent feel observed in pregnancy, and diseased uterine, and sometimes ovarian structures." There are also marked indications of disease in various organs, which serve to establish the nature of the complaint.

Frequent mistakes have, however, been made, and these should teach great caution. "I was desired," says Sir Astley Cooper, "to see a lady, who, I was told, labored under dropsy. When I entered the room, I saw a tall, delicate female, with an immense abdominal swelling, giving a distinct sense of fluctuation. I requested the physician accoucheur, whom I met, to examine if the lady was not with child; he said he thought it was unnecessary, as the fluctuation was very distinct, but that he would do so, and let me know the result in a few days. I heard no more of her for a week, and then I learned that she had been put to bed on the morning following my visit."*

Encysted dropsy is often more difficult to be understood, as here we may not find fluctuation. The symptoms should be carefully noted, as they daily become more aggravated in this disease, while the slighter affections of pregnancy generally wear off. The cervix uteri also, in ovarian dropsy, is of its natural size and length; and the tumefaction is often distinct in its character from that of the gravid uterus. But it may be that there is an enlarged ovary with pregnancy in the same person. The tumors, says Dr. Gooch, in such instances go on growing side by side; and he has known instances where living and healthy children were born, leaving the abdomen still distended with the ovary. The case here, he observes, is puzzling. Suppressed

* Lectures, vol. ii. p. 163. A case, detected by the application of the stethoscope, is quoted from Prof. Elliotson, in *Lancet*, N. S., vol. vii. p. 656.

menstruation is common in ovarian dropsy; the enlargement of the uterus may be mistaken for the ovarian enlargement; the child may be feeble or dead, and protrusion of the umbilicus attends each. Patient and assiduous examination is evidently necessary, and a particular attention to all the leading proofs of pregnancy.*

On scirrhus, it is sufficient to remark, that patience and judgment will generally teach us to distinguish its peculiarities, particularly as it is accompanied with striking and chronic indications of disease.

But even if we have settled that neither of the above diseases is present, and that there is an actual tumor of the uterus, it is not certain that it is caused by a foetus. It may arise from a mole, from hydatids in the uterus, and various other diseases of that organ. These remarks sufficiently prove that enlargement of the abdomen is an uncertain sign in de-

* Gooch, *Diseases of Women*, p. 239. The following are the remarks of Dr. Francis H. Ramsbotham on this subject: "A dropsical ovary may be confounded with pregnancy, especially as milk is sometimes secreted in this disease, but the menses most likely will not be suspended. Besides, the tumor does not possess the elastic springy feel which characterizes the gravid uterus when near the termination of pregnancy. The increase of swelling will be more or less rapid than the growth of the womb, and there will be no movement felt within it. But one of the best diagnostic marks by which it can be known from other abdominal tumors is the situation it occupied when first observed. An enlarged ovary invariably shows itself above one or other groin—the gravid uterus in the centre." It may be distinguished from ascites in being circumscribed. In ascites, also, there is a diminution of urine—but not so in an enlarged ovarium, unless it has made great progress, and then in consequence of pressure. (*London Med. Gazette*, vol. xvi. p. 645.) "If there be enlargement of the ovary, independent of pregnancy, the uterus will be found forced so low down into the vagina that its actual condition cannot be misunderstood." (Prof. Hamilton's *Practical Observations on Midwifery*, p. 29.)

An instance of blighted foetus, probably at the fifth month, but retained until the eighth, and which was mistaken for a diseased ovary, is related by Mr. Robertson, in *London Med. Gazette*, vol. xxiii. p. 11. The abdominal tumor appeared above the right groin, in the right half of the abdominal cavity. The diseased condition of the foetus rendered the nature of the case thus intricate. A case of scirrhus ovary mistaken for pregnancy, is mentioned in *London and Edinburgh Monthly Med. Journal*, vol. ii. p. 71.

termining the presence of pregnancy.* We have also to remember that the foetus may die at any period, and be retained. Here, of course, there will be no increased enlargement noticed, and yet there has been pregnancy.†

2. *A change in the state of the breasts* is a very reliable sign. They grow larger and more firm, while the areolæ round the nipples become of a brown color. Milk also is secreted.

Now all these have been questioned or denied as proofs of the presence of pregnancy. *Enlargement of the breasts* occurs in suppressed menses, and sometimes at the period of the cessation of the menses. Occasionally they do not enlarge until after delivery. The most unequivocal state is where, during a first pregnancy, the glands become full and tender, and

* Nor must we always suppose that a sudden reduction of size after enlargement has been owing to pregnancy and its results. Dr. Montgomery saw "an instance in a woman separated from her husband, who became affected with what was considered ovarian dropsy, and which enlarged the abdomen to the size of six months' pregnancy, some of the other symptoms of which state were also present. After an attack of inflammation, during which it is to be presumed the parietes of the tumor formed an adhesion with the upper part of the vagina, there took place suddenly a discharge of gelatinous fluid from that cavity, and the abdomen completely subsided in the course of a day, and the previous entertained suspicion appeared to be confirmed beyond a doubt; but on examination, the woman had not about her one of the signs of delivery; yet, had not the case been at once investigated, loss of reputation at the least would have inevitably, though most undeservedly, followed." (*Cyclopedia of Practical Medicine*, vol. iii. p. 503, art. *Pregnancy*.) A similar case is given in *Medico-Chirurgical Review*, vol. xxiv. p. 206.

† If an examination at an early period of pregnancy be deemed necessary, the following directions of Foderé and Mahon should be observed: Empty the intestinal canal, and let the female lie on her back, with her knees a little elevated, so as to prevent any tension of the abdomen. If the woman be not too fat or deformed, the uterus may be felt through the parietes of the abdomen, by applying the extended hand over the middle of the hypogastrium, so that the thumb touches the navel and the small finger the pubis. On her making an expiration, the enlarged uterus may be felt, hard, and of a spherical form. If these be present, *they indicate an increase in the size of the uterus, but not the cause of it.* (Foderé, vol. i. p. 443; Mahon, vol. i. p. 149. See also Smith, p. 485.)

have an appearance approaching to inflammation; and particularly if, previous to connection, they have been small. [We must not mistake an enlargement of the breasts from fat for one depending on increased size of the glands. Attention to the lobular feel of the gland will render the diagnosis easy.—C. R. G.]

A still greater diversity of opinion exists as to the *appearance of the areola*. I will quote several of the leading authors.* Dr. Gooch says that the dark color is very distinct in women with dark eyes and hair; but it is often difficult to tell whether it exists or not, in those of a light complexion.

In chronic inflammation of the uterus, he had also known this color produced, together with fullness and pricking pains in the breast. Notwithstanding these exceptions, he believes that this appearance rarely depends on other causes, and when it exists, deems it a sign either of present or previous pregnancy. He informs us, also, that Dr. Hunter relied greatly on it, and asserted that he could judge by it whether or not a woman was pregnant. "A subject was brought to him for anatomical purposes; but on looking at the breast, from the appearance of the areola, he declared that the female died while pregnant. One of his pupils examined, and found that she had a hymen. This seemed a contradiction; but the doctor still adhered to his opinion, and thought more attention due to the former than the latter appearance. On opening the body, his assertion proved just, for the uterus was found impregnated." (*Lowder, MS. Lectures.*)

Dr. Dewees deems it equivocal, *except in a first pregnancy*; and he also remarks, that sometimes it is not present. Ashwell mentions three instances, in which there was no pregnancy.

Dr. Blundell relies greatly on it. Dr. Montgomery, in his elaborate and valuable article on the signs of pregnancy, remarks, that much of the discrepancy that exists on this point is owing to exclusive attention to one of the characters, viz., the

* [As this matter is now well settled, I have much abridged the quotations of Dr. Beck.—C. R. G.]

color, and which he conceives of all others the most liable to uncertainty. He attaches, however, great importance to the appearance of the areola as a result of pregnancy, and I shall, therefore, mention the circumstances deemed by him to be characteristic.

As early as the second month, he has noticed a change of color; but in general it is then little more than a deeper shade of rose or flesh color, slightly tinged with a yellowish or brownish hue. During the next two months it is usually perfected, and varies in intensity with the peculiar complexion of the individual, being generally much darker in persons with dark hair, dark eyes, and sallow skin, than in those of fair hair, light-colored eyes, and delicate complexion. In negro women the areola is almost jet black. The extent of this circle varies in diameter from an inch to an inch and a half, and increases in some as pregnancy advances. In a recent case, Dr. Montgomery found it, at the time of labor, to exceed three inches in diameter. Dr. Montgomery also adds that "most of those who have noticed this change, appear, from their observations on it, to have attended to only one of its characters, namely, its color, which is, in my opinion, the one of all others most liable to uncertainty."

But in connection with these changes, and as confirmatory of their cause, the following are also observed: The nipple partakes of the altered color of the part, and appears *turgid* and *prominent*; and the part of the areola more immediately around its base has its surface rendered unequal by the prominence of the glandular follicles, which, varying in number from twelve to twenty, project from the sixteenth to the eighth of an inch. One other, also, equally constant and deserving of particular notice, is a soft and moist state of the integument, which appears a little raised above the surrounding skin, and in a state of turgescence, giving one the idea that, if touched by the point of the finger, it would be found emphysematous; this state appears, however, to be caused by infiltration of the subjacent cellular tissue, which, together with its altered color, gives proof of the increased vital activity in

the part; and we not unfrequently find that the little glandular follicles or tubercles, as they are called by Morgagni, are bedewed with a secretion sufficient to damp and color the woman's inner dress. Such, he adds, we believe to be the essential characters of the true areola, the result of pregnancy; and that when found possessing these distinctive marks, it ought to be looked upon as the result of that condition alone, no other cause being capable of producing it.

These appearances, says our author, are striking from the fifth month to the end of the pregnancy. The breasts are generally full and firm, and venous trunks of considerable size are seen ramifying over the surface, and sending branches toward the disk of the areola which several of them traverse. Along with these vessels, the breasts not unfrequently exhibit, about the sixth month and afterwards, a number of shining, whitish, almost silvery lines like cracks; these are most perceptible in women who, having had before conception very little mammary development, have the breasts much and quickly enlarged after becoming pregnant.

The observer must, however, understand that pregnancy may be present, and the color be wanting. In two cases mentioned and seen by Dr. Montgomery, the areola could hardly be distinguished in this respect from the surrounding skin, yet all the other changes just mentioned were well developed. Again, it must be recollected that in persons who have recently miscarried, and in nurses, the characters of the areola are kept up, and continue for some time. It is also conceded by our author, that in some cases the color remains permanent after a first pregnancy.*

[I believe that all good authorities *now* concur in the opinion, that the *areola*, with the characteristics so well described by Montgomery, is one of the most reliable signs of pregnancy.—C. R. G.]

* Dr. Merriman agrees in considering the formation of the areola as very conclusive evidence. He, however, adds a solitary case occurring to him, in which the areola was not developed until the commencement of the seventh month. This was a case of first pregnancy.

I apprehend that the authorities which I have given on this sign will incline the reader to attach considerable importance to its presence.*

The *secretion of a milky fluid* may occur without the presence of pregnancy. Hebenstreit states that he has known females in whom this fluid was produced by repeated friction, suction, etc.† A servant-girl, says Belloc, slept in a room with a child whom it was wished to wean. Being disturbed in her repose by its cries, she imagined that putting it to her breasts, it might be quieted. In a short time she had milk sufficient to supply its wants.‡ An account is also given in a manuscript, in the collection of Sir Hans Sloane, of a woman of the age of sixty-eight, who had not borne a child for more than twenty years, nursing her grandchildren one after another.§ Similar cases are mentioned by Foderé; and in

* Gooch's *Diseases of Women*, p. 201, etc., and *Midwifery*, p. 100; Dewees' *Midwifery*; Ashwell, p. 171; Lawrence's *Lectures*, p. 449; Blundell's *Lectures*; *Lancet*, N. S., vol. iii. p. 325; Montgomery's *Signs of Pregnancy*, chap. iv.; Hamilton's *Practical Observations on Midwifery*, p. 46.

In addition to the sign now considered, Mr. Ingleby mentions two changes connected with it, as indicative of pregnancy, and which I may state in this place: "The first consists of a very scaly state of the cuticle covering the areola; the second, in a discoloration, not very unlike the areola, and partially affecting the whole surface of the breasts. The breasts present a curious mottled or chequered appearance, of an irregularly brown hue, with intervening spaces, defined in extent, circular in form, and as white as the skin over the body in general. The last-mentioned appearance is strongly presumptive of pregnancy." (Ingleby's *Facts and Cases in Obstetric Medicine*, quoted in *Amer. Journal Med. Sciences*, vol. xx. p. 435.)

† Hebenstreit, p. 185.

‡ Belloc, p. 70. Dr. Dewees witnessed its secretion in a female who had never been pregnant; Baudelocque, in a girl eight years old, in the village of Alençon, who was presented to the Royal Academy of Surgery, October, 1783. (*Midwifery*, vol. i. p. 219.)

§ Smith, p. 484. There are several cases on record, of grandmothers suckling: one aged 60. (*Philosophical Transactions*, vol. ix. p. 100.) One seen by Dr. Stack, and aged 68. (*Philosophical Transactions*, vol. xli. p. 140.) A negro grandmother, aged 70, seen by Dr. Farquhar, in the Island of Jamaica. (*Coxe's Medical Museum*, vol. i. p. 267.) A case by Dr. Mon-

particular he relates an instance of a female, who, on the point of being conducted to prison, declared herself a nurse. Although this was a falsehood, yet in a few moments she produced the requisite proof. The author also suggests, that immediately after the cessation of the menses, milk is often secreted.* A microscopic examination of the secretion was

tagré, in France, female aged 65. (*Cas rares*, in Dictionnaire des Sciences Medicales.) A case by Mr. Semple, in England. The grandmother was forty-nine years old, and continued to menstruate regularly during the time of suckling. (North of England Medical and Surgical Journal, vol. i. p. 230.) A case by Dr. Kennedy, in England, of a woman who gave suck uninterruptedly from the twenty-fifth to the seventy-second year of her age; and now, in her eighty-first year, had still a regular secretion of milk. (Medico-Chirurg. Review, vol. xxi. p. 202.) A case communicated to Dr. Campbell by Dr. Steintal, of Berlin, a grandmother, of sixty-three, suckling a grandchild for seven months. (Campbell's Midwifery, p. 493.) A case by Dr. Carcagino, occurring in Germany. (American Med. Intelligencer, vol. ii. p. 323.) A case by M. Audebert, of a lady, aged sixty-two years, in France. (Edinburgh Med. and Surg. Journal, vol. lxvi. p. 545.) A case by Dr. Horace Green, of a lady in whom there has been an uninterrupted secretion of milk for twenty-seven years, although her youngest child was then fourteen years of age. (Ferry's New York Journal of Medicine, vol. iii. p. 188.) Dr. Wehr, of Cassel, relates a case of a female who had borne children, in whom for six years after, every monthly menstrual period was followed by a secretion of milk. (British and Foreign Med. Review, vol. xii. p. 558.) Lactation in a healthy male, twenty-two years old. Left breast. Case by W. C. Homar, M.D., of Philadelphia. (Med. Examiner, xiii. 454.)

* Foderé, vol. i. p. 440. The following case occurred to the late Professor Post, of New York: "A lady of this city (New York) was, almost fourteen years ago, delivered of a healthy child, after a natural labor. Since that period, her breasts have regularly secreted milk in great abundance; so that, to use her own language, she could at all times easily perform the office of a nurse. She has uniformly enjoyed good health; is now about thirty-five years of age, and has never proved pregnant a second time, nor had any return of her menses."

Dr. Shurtleff, in the Boston Medical and Surgical Journal, vol. i. p. 462, gives a case where the milk continued flowing for three years after delivery. Dr. Blundell mentions a similar instance in his Lectures.

Even men have suckled children. See the Bishop of Cork's case, in Philosophical Transactions, vol. xli. p. 810, where the father had fed his child in this way. The bishop examined the breasts, and found them very large. Humboldt and Bonpland saw a similar case in South America. The mother was sick, and the father, aged 32, put the child to his breast in order to quiet it; milk shortly came. Another well authenticated case is mentioned

here resorted to, in order to ascertain whether the female from whom it was taken had been recently delivered or not, believing the question could be settled by the presence or absence of colostrum-corpuscles.*

by Captain Franklin, in his journey to the Polar Sea, of a young Chippe-
 wyan, whose wife died in labor. "Our informant," says Sir John Frank-
 lin, "had often seen this Indian in his old age, and his left breast even then
 retained the unusual size it had acquired in his occupation of nurse."

A case in Germany, of a young man, twenty-two years old, witnessed by
 Dr. Schmetzer, of Heilbroun. The secretion of milk was constant. (Lon-
 don Med. Gazette, vol. xx. p. 846; see also Dunglison's Physiology, third
 edition, vol. ii. p. 417.)

Blumenbach gives a very rational explanation of this occurrence. The
 connection between the uterus and breasts seems to depend on the anasto-
 mosis between the epigastric and internal mammary arteries, and this anas-
 tomosis exists in men as well as in women. (Medico-Chirurgical Review,
 vol. xiii. p. 114.)

There is a curious fact mentioned by Dr. Clarke, of Alabama, in Dun-
 glison's American Intelligencer, vol. ii. p. 19, which bears upon this sub-
 ject. A female, who had never borne a child, was induced to take charge
 of an infant during the illness of its mother, and in order to quiet it, placed
 it to her breasts. Very shortly thereafter, she became pregnant. Similar
 cases are noticed of animals.

* *Examination of the Human Milk in Legal Medicine.*—Edinburgh Philoso-
 phical Society, March 19, 1853. Mr. Mercer Adam called the attention of
 the Society to a new and important use of the microscope in legal medi-
 cine. He remarked that there were few cases in medical jurisprudence
 more difficult to decide than whether, after a few weeks had elapsed, partu-
 rition had occurred recently or at a remote period. In such cases of doubt,
 where delivery is circumstantially believed to have recently occurred, but
 where all the physical signs may, with equal propriety, be reckoned evi-
 dences of this having been at a remote period, he believed that the detection
 of colostrum-corpuscles in the milk would at once decide the question, and
 almost with certainty prove the delivery to have been recent. In illustration
 of this, he cited the following case, which had recently come under his
 notice: The body of a newly-born child, much decomposed, was found in a
 moss in the south of Scotland. It was impossible to decide, *secundum artem*,
 whether it had been born alive; but it appeared to have been dead for four
 or five weeks. Proceedings were taken to discover the mother, and suspi-
 cion fell on a young woman who was supposed to have been secretly de-
 livered about four or five weeks previously—that is, about the same date as
 the infant was thought to have been exposed. On being arrested on the
 charge of concealed pregnancy, she said she had had a child a year and a
 half before, which she had nursed until within three months of her appre-

3. *The suppression of the menses.*—This may take place, as already stated, from disease, without the presence of pregnancy; and again, it is asserted that the menses have continued in certain cases during pregnancy.

It is important to understand the diversity of opinion that exists on this last point. Dr. Heberden knew a female who never ceased to have regular returns of the menses during four pregnancies, quite to the time of her delivery.* Deventer mentions of one who became pregnant before menstruating, and immediately after conception this discharge returned periodically until her delivery; and this was the case during several successive pregnancies—inverting, as it were, the usual order of nature.† Dr. Hosack had a patient, who, during her last three pregnancies, menstruated until within a few weeks of her delivery, and, notwithstanding, brought forth a healthy child at each labor.‡ Additional authorities are given below.

hension, and firmly denied having been recently delivered. The two medical men, who were judicially appointed to examine her, came to different decisions, so equivocal were all the signs as to the period which had elapsed since her delivery. A microscopic examination of her milk was suggested, and it was found to abound in colostric globules. This decided the *questio vexata*, and showed parturition to have lately occurred. The girl, on being told that imposition no longer availed, confessed having recently given birth to a still-born child, thereby confirming the accuracy of the revelations of the microscope. Mr. Adam considered that in such cases the microscope was likely to be as serviceable to the medical jurist, as it was in the detection of blood globules, spermatozoa, etc. (Monthly Journal of Medical Science, May, 1853.)

* Commentaries.

† Foderé, vol. i. p. 437. Similar cases are mentioned by Baudelocque, etc.

‡ Haller refers to similar cases, (vol. vii. part 2, p. 142.) Of authors and observers in favor of menstruation, or rather a periodical discharge, during a part or the whole of pregnancy, I may mention Baudelocque, vol. i. p. 230; Capuron, p. 63; Belloc, p. 62; Gooch, Diseases of Women, p. 203; Prof. Carus, American Medical Recorder, vol. xiii. p. 421; Dr. Dewees; Dr. Blundell, Lectures; Dr. Power, Medico-Chirurgical Review, vol. ii. p. 413; Dr. Montgomery, Cyclopaedia of Practical Medicine, art. *Pregnancy*; Dr. Kennedy, p. 12, who also quotes a case from Mauriceau. Cases are related by Mr. Mayo, (in Middlesex Hospital,) London Med. and Surg. Journal, vol. iv. p. 179; by Dr. Busch, of Berlin, British and Foreign Med. Review, vol.

On the other hand, it is denied that this occurs. Dr. Denman deems suppression to be a never-failing consequence of conception. Dr. Davis is of opinion that *genuine menstruation has never existed during pregnancy*. The orifice of the uterus, he remarks, is then hermetically sealed, and it is incompatible with the safety of its contents, as is seen in the occurrence of hemorrhage and premature discharge of the ovum. He is willing to allow (and this is the prevalent doctrine on his side) that cases of periodic discharge of blood occur, but not *menstruous*. It has an extra-uterine origin; and as the parts are in a state of plethora, the vaginal branches of the uterine arteries may furnish it.*

v. p. 577; by Dr. Hester, of New Orleans, Philadelphia Med. Examiner, vol. iii. p. 197; Dr. Churchill, in his work on the Diseases of Pregnancy and Childbed; Dr. Meurer, in London Med. Gazette, vol. xxvii. p. 303. Here the female menstruated only during pregnancy, never during the interval. Brierre DeBoismont, in Medico-Chirurg. Review, vol. xl. p. 378; Dr. Burrell, Midwifery Statistics of the Philadelphia Hospital, in American Journal Medical Sciences, N. S., vol. vii. p. 319.

Instances resembling those of Deventer, are mentioned by Dr. Dewees; by Stein, (American Medical Review, vol. i. p. 411;) by Dr. Busch, of Berlin.

Dr. Maunsell, of Dublin, in his report of the obstetric practice at the Wellesley Female Institution, during 1832, remarks thus: "Three cases were noted, in which a species of menstruation occurred during pregnancy. In one, a discharge of blood, which the woman could not distinguish from the menses, took place regularly every twenty-eight days." (Edinburgh Medical and Surgical Journal, vol. lx. p. 301.)

Dr. Campbell, (Midwifery, p. 44,) had a case in which menstruation was regular during six months after conception.

I subjoin the following as I find it: "Dr. J. P. Frank had under his care a woman who had three healthy children, and yet had never had either catamenia or lochia." (Quarterly Journal of Foreign Medicine and Surgery, vol. iv. p. 324.)

* Davis' Obstetric Medicine, p. 253. Dr. Sims denied its existence, except in the form of manifest hemorrhage. (Ibid., p. 257.) John Burns (edition of 1823) says that the weight of authority is decidedly against menstruation during pregnancy. In several cases that came under his own observation, although the discharge had considerable periodical regularity, yet he always found it to consist of pure coagulable blood. Hogben, Merriman, Ashwell, and Ramsbotham are of a similar opinion. The latter, however, mentions in his Lectures, that he has a patient who always menstruates once after having conceived, though very sparingly. (London Med. Gazette, vol. xiii. p. 268.)

Professor Hamilton, of Edinburgh, asserts that suppression of the menses

Probably the last is the preferable explanation. It is most consonant with our ideas of the phenomena of pregnancy. When applied, however, in medical jurisprudence, we must recollect the remark of Dr. Gooch, that whether it be menstruation or periodical hemorrhage, from the above cause, or from partial separation of the ovum, the female cannot discriminate; and I may add, the examiner will often be in extreme doubt.

[*Properties of menstrual blood.*—Although differing, apparently, in some of its sensible properties from the healthy systemic blood, the menstrual secretion is believed, by most physiologists of the present day, to be very nearly the same in its constituent proportions. Its great distinguishing characteristic is that of not coagulating on removal from the body; a peculiarity said to be owing to its deficiency of fibrin, but principally, no doubt, to its admixture with the vaginal mucus, in the acid of which fibrin is freely soluble. It is true that the older writers, Burns, Denman, Gooch, Clarke, Dewees, and others, assert that there is no fibrin in the true menstrual fluid, but later observers have fully established its presence. Carpenter says:* “The catamenial discharge, as it issues from the uterus, appears to be nearly or quite identical with ordinary

invariably attends pregnancy during the early months, and of course throughout its progress. He admits, however, that in a few cases there are *irregular* bloody discharges during the first months. The practitioner, he adds, may distinguish these last from the menstrual fluid, by attending to three circumstances—the period of recurrence, the duration, and the quality of the discharge. (Hamilton's Practical Observations on Midwifery, p. 45, and his Letter to Dr. James Johnson.)

In the Boston Medical Magazine, vol. ii. p. 367, there is an interesting case given by Dr. Fisher, which, I apprehend, will assist in explaining this much discussed discharge. The female, ten weeks married, suffered under bloody discharges, at three weeks, and again at two weeks after that. For some time before her death they were frequent. She died at the end of the above period; and although no impregnation was suspected, yet the case was found to be one of tubular pregnancy, and hemorrhage from the placenta had been the cause of death.

* Principles of Human Physiology, p. 756.

blood; but in its passage through the vagina it becomes mixed with the acid mucus exuded from its walls, which usually deprives it of the power of coagulating." Dr. Whitehead made many carefully conducted experiments in order to determine this point, introducing the speculum and securing the fluid directly from the mouth of the uterus, and then submitting it to microscopic examination and chemical analysis. He says: "From the above-mentioned appearances, I conclude that the *true* menstrual blood is extremely like that circulating through the capillaries in most of its leading properties, probably in all. The circumstance of its ready coagulation is conclusive as to the presence of fibrin, but in what precise proportion, I have no means of ascertaining; it is probable, however, that the relative quantity of this constituent in the fluid under consideration is not different from that which obtains in the circulating mass in its healthy condition."—I. P. W.]

I will add, in this place, principally for the purpose of citing a case from Belloc, that pregnant females may feign menstruation by staining their linen with blood. This deception was attempted on him by a girl three months advanced.† Dr. Montgomery, of Dublin, detected the pregnancy of a female, who for two months had thus stained her linen, by examining the areolæ. They exhibited the characteristic appearance so perfectly, that he charged her with the fact. She was so completely taken with surprise, as to confess it.‡

Notwithstanding the exceptions stated, we should attach

* Abortion and Sterility, p. 23. M. Moreau (Midwifery) considers the menstrual fluid to be pure blood.

Simon, in his *Animal Chemistry*, vol. i. p. 337, (Sydenham Society Publication,) says: "The most striking peculiarities of menstrual blood are the total absence of fibrin and the increase of the solid constituents caused by the excess of the blood corpuscles." His editor and translator, Dr. Day, however, adds: "There can be little doubt there is fibrin in the menstrual secretion; its determination is, however, usually rendered impossible by the presence of a large amount of mucus, which seems to deprive the blood of its power of coagulating."

† Belloc, p. 65. "Il faut exiger alors que les parties soient lavées avec de l'eau tiède; si le sang ne réparaît pas, le cas est suspect." (Capuron, p. 81.)

‡ *Cyclopedia of Practical Medicine*, vol. iii. p. 472.

great importance to the *absence of the menses* as indicating pregnancy; and the remarks of Belloc on this point are deserving of great attention: "When a female experiences the suppression, along with other symptoms of pregnancy, we may consider her situation as yet uncertain, because these signs are common to amenorrhœa and pregnancy; but if, toward the third month, while the suppression continues, she recovers her health, and if her appetite and color return, we need no better proof of pregnancy. Under other circumstances, her health would remain impaired, and even become worse."*

4. I merely notice *loss of appetite, nausea, vomiting*, etc. etc., to state that they are equivocal. They accompany many diseases, are wanting in many pregnancies, and even if present, occur in the early stages, the time precisely when no certain judgment can be formed. There are, however, some points worthy of observation. If the sickness and vomiting occur only in the morning, and the patient is well during the rest of the day, it is suspicious. So also with *anasarcous swellings of the extremities*. If this comes on suddenly, and the patient is otherwise in good health, it is a sign of some importance, according to Dr. Blundell.

Dr. Denman was disposed to place much reliance on *protrusion of the navel*, in doubtful cases. It emerges, he observes, in pregnancy, until it comes to an even surface with the integuments of the abdomen. Dubois also attaches considerable importance to it. Mahon, Gooch, and Dewees, however, deny its infallibility. It occurs from dropsy, or any chronic en-

* Belloc, p. 60; Smith, p. 485. Dr. Montgomery has, however, pointed out an occasional variety of suppression, which, of all others, is most likely to deceive. It is the case of young and newly married females, who in some instances have no return of the menses for two or three months, and the breasts enlarge, and yet at the end of this or a longer period, ordinary menstruation recurs. In some instances, a gush of sanguineous blood and the ejection of flakes of membranes, resembling that discharged in dysmenorrhœa, terminate the above series of symptoms. It is highly probable, according to our author, that in some, at least, of these cases, conception has occurred, but the ovum perishing, no evidence is furnished of its existence. (*Signs of Pregnancy*, p. 44.)

largement. The reverse, however, may assist in some cases. If the umbilicus is depressed, and the abdomen soft and yielding, the existence of pregnancy is doubtful, [though still quite possible.—C. R. G.] It should be remembered, that the protrusion seldom occurs before the sixth month; and the further the pregnancy is advanced, the more distinct it will be.

5. Another sign that has been depended on, is the *motion of the fœtus in the womb of the mother*. It is wanting in the early months of pregnancy, but during the latter ones may generally be ascertained. This sensation, however, which in real pregnancy the female always mentions at an early period, is of course not spoken of in concealed cases, and it remains with the examiner to discover it by other means. To this end, he dips his hand in cold water, and applies it suddenly over the region of the uterus. If the fœtus is alive, its motion will be felt evidently depending on muscular power, except, according to authors, where it is very feeble, or where the woman is dropsical. But, unfortunately, this sign is not infallible, the fœtus may be dead, or there may be twins, in which case the motion is sometimes not felt until a late period. On the other hand, flatus in the bowels has been mistaken for it.* A case, showing the uncertainty of its occurrence, is related by Capuron. A female, with a very large abdomen, was received into one of the hospitals of Paris. She was visited by many distinguished accoucheurs, surgeons, and physicians. Some declared that she labored under ascites; others, that a scirrhus and dropsical ovarium was present. An abdominal pregnancy was also suspected, but no one believed it to be real pregnancy, since no motion of the fœtus could be felt.

* "The name of simulated pregnancy has been given to some cases of hysteria, in which the abdomen enlarges gradually, sickness occurs, and so many signs of an impregnated uterus are present, that time alone can solve the doubts they raise. The catamenia are suppressed, the breasts are tumid, and there is pain in the back." Mr. Tate says of these cases: "In what this enlargement consists I am utterly ignorant; that it is not merely a mere accumulation in the colon I know; that it is substantial I am equally sure." It is, we apprehend, a mixed state of vascular fullness and tympanitic distention. (*Cyclopedia Pract. Med.*, art. *Hysteria*, by Dr. Conolly.)

The woman was kept on light food, and innocent remedies were administered. The volume of the abdomen enlarged, and at last, after three weeks of examinations and consultations, a strong and healthy child was born.*

It may also be simulated. Dr. Blundell relates of a case, in his Lectures, which was examined by Lowder, Mackenzie, and other celebrated accoucheurs of their day, and where the female had attained such skill in counterfeiting, that they declared they would have been deceived, if they had not by personal examination found the uterus unenlarged.

The motion of the foetus, when felt by the mother, is called QUICKENING. It is important to understand the sense attached to this word formerly, and at the present day. The ancient opinion, and on which indeed the laws of some countries have been founded, was, that the foetus became animated at this period—that it acquired a new mode of existence. This is altogether abandoned. The foetus is certainly, if we speak physiologically, as much a living being immediately after conception, as at any other time before delivery; and its future progress is but the development and increase of those constituent principles which it then received. The next theory attached to the term, and which is yet to be found in many of our standard works, is, that from the increase of the foetus, its motions, which hitherto had been feeble and imperfect, now are of sufficient strength to communicate a sensible impulse to the adjacent parts of the mother. In this sense, then,

* Capuron, pp. 73, 74. There are cases, "though rare, where it does not occur during the whole of pregnancy, although the child has been born alive and vigorous. Of this I have known one instance and read of others." (Gooch, *Diseases of Women*, p. 203.) A case that occurred to Baudelocque and Vicq. d'Azyr is related in *Dict. des Sciences Med.*, vol. xix., by Murat, art. *Grossesse*. Dr. Kennedy corroborates this by his own experience, and also gives some striking instances of self-deception. (Pages 25-27.)

Dr. Montgomery says that two instances have come under his own observation of its total absence during the whole period of gestation, notwithstanding the subsequent birth of living and healthy children, and he quotes parallel cases from Levret, Gardien, Dewees, and Campbell. (*Signs of Pregnancy*, p. 88.)

quickening implies the first sensation which the mother has of the motion of the child.

Another opinion is that which considers quickening to be produced by the *impregnated uterus starting suddenly out of the pelvis into the abdominal cavity*. This explains several peculiarities attendant on the phenomenon in question—the variety in the period of its occurrence, the faintness which usually accompanies it, owing to the pressure being removed from the iliac vessels, and the blood suddenly rushing to them; and the distinctness of its character, differing, as all mothers assert, from any subsequent motions of the fœtus. Its occasional absence in some females is also readily accounted for, from the ascent being gradual and unobserved.*

This subject will again be noticed in the chapter on Abortion. At present, it will be sufficient to remark, that considerable variety occurs as to the *time* of quickening.

The extremes are probably from the tenth to the twenty-fifth week. Dr. Denman observes that it happens from the

* Mr. Royston appears to have been the first that satisfactorily developed this opinion to the public, although he gives the credit to Dr. H. S. Jackson, of originally advancing the idea. See his paper, copied from the London Med. and Phys. Journal, in Eclectic Repertory, vol. iii. p. 25.

Writers on Midwifery are embracing this opinion. (See Conquest, p. 38; Hogben, in London Med. Repository, vol. i. p. 146; Blundell and Burns; Lancet, N. S., vol. iii. p. 104; Dr. James, in Burns' Midwifery, 1823, vol. i. p. 208; Morley, p. 206; Campbell, p. 489; Davis, p. 854.) Dr. Dewees, however, is opposed to it, as is also Dr. Montgomery. The last distinctly felt the motions of a child in utero, while the mother had no perception of them. Here the uterus could be distinctly felt in the abdomen, and yet the mother did not quicken for nearly three weeks after. Dr. Kennedy suggests that it may arise from either cause, p. 23.

Dr. Churchill (Midwifery, p. 109) inclines to the opinion of the late Dr. Fletcher as the most probable. "The movements of the fœtus while the uterus is in the cavity of the pelvis are not perceived, because the uterus is not supplied with nerves of sensation, and is surrounded by parts similarly deficient, but when it emerges from the pelvis, it comes in contact anteriorly with the abdominal parietes, which are liberally supplied with sensitive nerves, and which, by contiguity of substance, feel the movements, and thus become conscious of them."

Is not this a physiological explanation of the opinion advocated in the text?

tenth to the twelfth week, but most commonly about the sixteenth after conception. Dr. Dewees and Blundell agree that it most generally occurs nearer the fourth than the third month. Roederer kept a register of 100 women, as to the period of probable impregnation, quickening, and delivery. Of these, 80 quickened at the fourth month, a part of the rest at the third, and the remainder went to the fifth.* Dr. Montgomery found the greatest number of instances to occur between the end of the twelfth and sixteenth weeks, or, adopting another mode of calculating, between the fourteenth and eighteenth weeks after the last menstruation. The earliest cases that he has met with were, one of eleven weeks and two days after conception, and 201 before delivery; and another of 198 days before delivery; while, on the other hand, he has attended cases where the quickening did not occur until the sixth and seventh months. In one instance, a lady, in seven successive pregnancies, felt the child for the first time in the sixth month, and once in the seventh. Dr. Ramsbotham observes, that "if the woman has quickened, she has passed sixteen weeks at least, and is probably near eighteen."† Again, Puzos, a celebrated continental accoucheur, says that it takes place at the end of two months, but most commonly at the expiration of eighteen weeks. Hydropic women, he adds, do not observe it until the sixth or seventh month.‡ And in a late trial for abortion in England, the medical witness deposed that it took place at eighteen weeks, sometimes in fourteen, and sometimes not till twenty weeks, but mostly at eighteen. That he never knew it so late as twenty-five, but it might happen, in some cases, at twenty-one or two.§

The only writer who, according to my knowledge, speaks of anything like a positive period, is Dr. Hamilton. "More than forty years," says he, "have elapsed since I ascertained

* James' Burns, vol. i. p. 208.

† London Med. Gazette, vol. xiii. p. 551.

‡ Foderè, vol. i. p. 446.

§ Edinburgh Med. and Surg. Journal, vol. vi. p. 248.

that, in general, quickening takes place at the completion of four calendar months after conception.”*

The discordance in the observations of the physicians is readily explained by recurring to the cause just now assigned. And we may reasonably suppose that the motion in question will be soonest felt when the development has been most rapid. The practical deduction respecting it, in a case of supposed pregnancy, is not to pronounce a female unimpregnated, because it cannot at once be felt. The examination should be frequently repeated, before a decisive opinion be given.

6. Connected with the previous signs is an *alteration in the state of the uterus*; and this is ascertained by what is called the *touch*. It is founded on the following physiological facts. After conception, the fundus and body of the uterus both increase, and thus, from its becoming heavier, it will naturally descend lower down in the pelvis, and project farther into the vagina.† The uterus remains in this situation until it becomes so large as to rise out of the pelvis; and, accordingly, this temporary abbreviation of the vagina is a sign of pregnancy, though, of course, an equivocal one. The body of the uterus enlarges. The changes in the neck are also striking. In the unimpregnated state it projects into the vagina about two-thirds of an inch, (from a quarter to half an inch, *Montgomery*,) like a thick, firm, and fleshy nipple, having at its termination a *transverse* opening. During pregnancy, it is felt fuller, rounder, and softer; the margins of the orifice acquire a peculiar lubricity, in consequence of the increased secretion

* Practical Observations on Midwifery, p. 43. “Sometimes at an earlier period, but generally between the sixteenth and twentieth week from the last period of being regular, she feels the motion of the foetus.” (MERRIMAN.)

† This is the common explanation, but the reviewer of Dr. Montgomery, in the British and Foreign Med. Review, (vol. iv. p. 454,) denies that the uterus actually descends lower into the cavity of the pelvis. “The os uteri being low in the pelvis, does not, however, arise from the descent of the uterus itself, but simply, as Madame La Chapelle has correctly shown, from its having increased in size and its fundus not yet having ascended out of the pelvis.”

from the muciparous glands in that situation, and the orifice itself *feels* as if it were circular, because it has become more yielding.* At the termination of pregnancy, the neck is com-

* Montgomery, Signs of Pregnancy, p. 100. Dr. Birnbaum asserts that, in many cases, when the orifice of the womb feels *circular*, he convinced himself by the speculum that its form was in reality *transverse*. The degree of shortening of the cervix uteri is also, according to him, an uncertain sign. See notice of Birnbaum on the changes which the cervix and lower segment of the uterus undergo in the second half of pregnancy. (British and Foreign Medical Review, vol. xvi. p. 184.)

"The changes in the condition of the os and cervix uteri during pregnancy have been investigated by MM. Filugelli, Chailly, and Cazeaux. The results they have arrived at agree on the whole with those of Birnbaum. M. Filugelli, indeed, appears to have fallen into the error of imagining that the cervix uteri becomes actually elongated in the course of pregnancy; and M. Chailly's paper is principally occupied with a refutation of this opinion; the enlargement which may possibly result from tumefaction of the cervix at an early period of pregnancy being, in his opinion, too slight to be appreciated. M. Cazeaux's conclusions are: 1. That a softening of the texture of the cervix uteri takes place from the very beginning of pregnancy, being for the first few months confined to its lower part, but extending from below upward, and taking place less rapidly and in a less marked degree in primiparæ than in those who have already borne children. 2. While this softening goes on, the cervix dilates; presenting, in those who have had children, the form of a funnel, with its base downward, while in primiparæ it is more spindle-shaped. 3. The os uteri is closed in primiparæ until the end of pregnancy; in women who have borne children it is widely open, forming the base of the funnel. 4. As a general rule, no real shortening of the cervix takes place until about the last fortnight of utero-gestation." (West's Report, in Brit. and For. Med. Rev., April, 1844.) "The diagnostic sign in the earlier months was found in the *sealing of the os uteri*. If, on examination, the opening of the os was obliterated, being filled up by a thick glutinous secretion, a confident opinion was given, which was invariably realized." (Ashwell, in Guy's Hospital Reports, vol. i. p. 133.)

On examination in the virgin state, the anterior lip of the uterus appears fuller and more prominent, while the posterior is of greater length. Great diversity of opinion prevails as to the natural size of the orifice. Some say it is so small as not to admit a probe; others, that it will admit the glans penis. My own experience would lead me to say, that the *os uteri* in the virgin state will admit the point of the little finger, (Dr. Wm. Hunter was of the same opinion,) and that in those who have borne children, it is generally a little larger. (Dr. Charles Bell, in Edinburgh Med. and Surg. Journal, vol. lxii. p. 16.)

pletely obliterated; the portion of uterus which lies over the top of the vagina no longer projecting into its cavity, but forming a flat roof.

This obliteration generally commences in a first pregnancy about the fifth month, but in females who have had several children, the neck yields more readily, and accordingly with some it is much altered at the fourth, as it is in the previous case at the sixth month.*

During the period of these alterations, the vagina is more elongated, since the uterus rises farther up. But toward delivery, this viscus gradually re-descends. The os uteri also varies with the changes in the cervix. The lips gradually flatten and disappear, and toward delivery, a small rugous hole is only discoverable.†

Now with a knowledge of these facts, we may proceed to an examination to ascertain their presence. Having evacuated the bladder and intestines, the female is laid in such a position that the muscles of the abdomen may be in a state of relaxation. The fore and middle fingers of the right hand are then placed on the cervix uteri, while the abdomen is to be felt with the left. The patient should then be required to breathe deeply, and the examiner should press gently with his hand during expiration. If the uterus be enlarged, he will feel a hard, globular, resisting mass above the pubes. The orifice and neck should also be examined, and it is particularly advised to jerk upward the point of the finger, so as to act gently on the uterine tumor. A sensation of something receding will be felt, and which will presently fall again on the point of the finger. This is owing to the foetus floating upward a little in the liquor amnii, and then descending by

* Gooch, p. 213. Velpeau corroborates this, and states expressly that repeated observations and the most carefully conducted experiments have shown him that the changes which the cervix uteri undergoes during pregnancy vary almost as much as its anatomical characters, in unimpregnated females. (London Medical Quarterly Review, vol. iii. p. 92.)

† Denman; W. Hunter; Burns.

its own weight.* The best period for applying this test is between the fifth and sixth months.

Such an examination, it will be perceived, elucidates the state both of the womb and the fœtus. It is certainly one of the most unequivocal modes of ascertaining pregnancy. But it requires long habit to become expert at it, and this few practitioners will have an opportunity of obtaining. The most distinguished accoucheurs have been, and probably will continue to be, deceived with it. Of this, the works of Mauriceau and Baudelocque bear testimony, and Foderé relates a case which should make every physician distrust his skill. In a hospital where he attended, a female was detained on suspicion of being pregnant. Several medical persons visited and examined her. Some declared that she was in the eighth month of pregnancy, while others denied that she had ever conceived. She was kept in the hospital during a whole year, and was then dismissed as large as ever.†

It has, however, been asserted, since the employment of the speculum, that the occurrence of previous or present pregnancy, or the contrary, may be detected through its means by an examination of the neck of the uterus. Dr. Marc D'Espine, of Geneva, has published his investigations on this subject, of which the following is a brief outline.

The neck of the uterus, in a healthy female who has never been pregnant, has the form of a small nipple projecting more than it is broad at the base; its color is usually that of the vagina, and varies between the pale rose, the rose, or the violet rose shade. It is never vivid in a state of health. The orifice always has the form either of a triangular or round

* Foderé, vol. i. p. 450; Smith, p. 485; Hohl, in British and Foreign Medical Review, vol. i. p. 108; Churchill. The examination may also be made in the standing position. It is called *Ballottement* by the French.

† Foderé, vol. i. p. 451. Capuron mentions another case in which both Corvisart and Baudelocque were mistaken. One said it was encysted dropsy with extra-uterine pregnancy; and the other, that it was an enormous scirrhus of the uterus: and yet in three weeks a large and healthy child was born. (London Medical Quarterly Review, vol. ii. p. 274.)

aperture, and is constantly of very small diameter, not more than one or two lines.

There were some exceptions to this general result, since in a few the neck was but little prominent or entirely flat.

If one or two children have been born, the neck is found increased in size, and more or less flattened. The orifice is almost linear and not round, and it is dilatable. The length of the orifice is always three lines, and frequently six or eight.

In those who have miscarried, an approach to the nulliparous has been observed, particularly as to the shape of the neck. The orifice would seem to become sinuous or jagged, in proportion to the number of previous labors.* How far this mode of examination will be found generally applicable or correct, remains yet to be determined.

As to the investigation, already described, by means of the touch, I will only add that there are some varieties in the conformation of parts that render this sign useless, or unavailable. The neck of the uterus is oftentimes seated very low, both in married and unmarried females, while in others it is almost out of reach. The near approach of menstruation and the accompanying irritation of the uterus may also, according to Dr. Montgomery, effect a change in the form and texture of the os uteri, similar to that occurring in pregnancy; this, however, is transitory. Several affections of the uterus produce an increase in the volume of the organ, and an examination by the touch may give an impression very similar to that of a child contained in it. But, above all, the value of it is diminished from the fact that it can be made with most readiness at the early stages of pregnancy, when the uterus is low down, while at the seventh month the uterus has risen high up, and can be examined with much greater difficulty. It can thus be applied with greater certainty of success only at periods when our opinions at the best must be doubtful.

* Dunglison's American Intelligencer, vol. i. p. 103, from the Archives Générales de Médecine, April, 1836.

7. We can derive satisfactory information on this subject by an *examination of the vagina*.

Dr. Kluge, professor of Midwifery in Berlin, considers a *bluish tint of the vagina*, extending from the os externum to the os uteri, as a sure test of pregnancy. According to him, this discoloration commences with the fourth week of pregnancy, continues to increase to the period of delivery, and ceases with the lochia. The only condition considered as likely to vitiate this test is the existence of hemorrhoids in a very marked degree. Dr. Sommer, of Copenhagen, convinced himself of the presence of this particular color in pregnant women, under the direction of Professor Kluge.*

Parent-Duchatelet, in his remarkable work on Prostitution in the City of Paris, mentions that M. Jacquemin had, in examining the public women at the dispensary, discovered a peculiarity belonging to the pregnant state, viz., a change of color in the lining membrane of the vagina. It becomes of a violet hue and sometimes purplish, like the lees of wine. M. Jacquemin has never been deceived in this, although he has had 4500 cases passing through his hands.†

[Dr. Montgomery, in the first edition of his work, attaches little importance to this sign; but in the last edition he says: "Since expressing these opinions, my experience on this point has been very ample indeed, and I have seen reason to consider this sign of a far greater positive value than I could venture to allow it at that time: it has also, since then, been examined by others, competent to judge, and I think with a very general agreement and acknowledgment of its importance."‡—J. P. W.]

Lastly, Professor 'Osiander has announced a sign to which he is inclined to attach great importance, and which he calls

* British and Foreign Med. Review, vol. ii. p. 275. Dr. Antrepoint appears also to have added his testimony in favor of this sign. (Lancet, January 6, 1844, p. 495.)

† De la Prostitution, vol. i. p. 217. The author states that he has verified this test under the direction of M. Jacquemin.

‡ Signs and Symptoms of Pregnancy, 2d London edition, p. 241.

the *vaginal pulse*. "In pregnancy," he says, "the *arteria uterina* and its branch, the *arteria vaginalis*, must be necessarily increased in size, and their systole and diastole in some degree affected by the process going on in the parts which they supply. At that time he has felt the *arteria vaginalis* at the posterior border of the *columna rugarum anterior*, and has found its pulsation to be stronger and harder, and its calibre greater than usual. During imminent abortion and other morbid conditions, he has observed the vaginal pulse to be quicker than the radial."*

Dubois, however, while he allows the possibility of this, asserts that an increased vaginal pulse may occur from many other causes.

8. I may add in this place a brief notice of some equivocal signs, but which should not be overlooked in a medico-legal investigation. If present, they assist in completing the mass of evidence.

One is drawn from the appearance of the *blood*. According to Dr. Blundell it is generally sizzly during pregnancy. Dr. Montgomery, however, denies this, and it probably is not a constant occurrence.

Andral and Gavarret have, however, shown that the "blood of females in the later stages of pregnancy manifests a remarkable tendency to assume the character of the blood of inflammation."†

The secretion from the *salivary glands* is often viscid, of a white and frothy appearance, and sometimes so much increased in quantity as to constitute salivation. Dr. Montgomery, besides his own cases, quotes Hippocrates, Gardien, Burns, and Dewees, in confirmation of its occasional presence. Dr. Churchill has also noticed it. It is distinguished by the absence of sponginess and soreness of the gums, and the want of the fetor which accompanies ptyalism from mercury.‡

* British and Foreign Med. Review, vol. iii. p. 247.

† Ibid., vol. xvii. p. 148.

‡ A remarkable case is related by Mr. Gorham, in London Med. Gazette,

A chemical test was, 1831, announced by M. Nauche, of Paris, although it is not original with him. He asserts that by allowing the *urine* of pregnant women to stand for some time there will form a white, flaky, pulverulent matter, being *the caseum, or peculiar principle of milk formed in the breasts during gestation*. In a case where the stethoscope and an examination *per vaginam* failed, he was enabled by it, it is said, to predict the presence of pregnancy. Dr. Montgomery repeated the experiment with success in several cases; the peculiar deposit appearing as if a little milk had been thrown into the urine, and which was partly deposited and partly floating. Sir Robert Kane, at the request of Dr. Kennedy, made a similar examination, and found the white flocculent precipitate not only in the urine of pregnant women, but also in equal quantity from that of a female of fourteen, and a woman nursing for two months.

Mr. Pereira, of London, also found this substance in the urine of women far advanced in pregnancy, but not, he adds, invariably in that voided during the early months.* M. Eguiser, of Paris, however, after a series of extended experiments and observations, asserts its existence from the first month of pregnancy to delivery. The urine must be allowed to stand from two to six days, when minute opaque bodies are observed to rise from the bottom to the surface of the fluid, and to form a continuous layer, so consistent that it can be almost lifted off by raising it by one of its edges. It is whitish, slightly granular, and much resembles the fatty substance that scums on soups, after they are allowed to cool. After some days, small masses gradually detach themselves, and fall to

vol. xxii. p. 578. That it also frequently occurs in hysteria, is established by the references of Mr. Laycock, in *Edin. Med. and Surg. Journal*, vol. 1. p. 45.

* *Lancet*, N. S., vol. viii. p. 676; Kennedy, p. 57; Dr. Cummin's Lectures, in *London Medical Gazette*, vol. xix. p. 483. Mr. Tanchou has also proved its presence in cases where pregnancy was not suspected, but finally proved to be present. *Medico-Chirurg. Review*, vol. xxxv. p. 228; also Vannoni in 140 cases, *American Journal Med. Sciences*, N. S., vol. vii. p. 489, from *Revue Medicale*.

the bottom. The name of *kiesteine* is now given to this substance.* Dr. Montgomery thus concludes his observations upon this subject:† “Having thus noticed the investigations and opinions of several competent authorities on this subject, I have to add that my own examinations of the matter have not afforded me any satisfactory result. In some of the specimens of urine, from cases of undoubted pregnancy, the peculiar changes did not present themselves; in other cases, where pregnancy did not exist, appearances were observed, so like those supposed to indicate that state, that I confess I could not discriminate between them. Thus, as to the cheesy odor on which so much stress is laid by some observers, it was not perceptible in several of the cases examined by me, although the other changes were distinct.” [The opinion is now nearly universal that no reliance can be placed on this examination of the urine.—C. R. G.]

Donné thinks he has ascertained that the urine during pregnancy contains less uric acid and phosphate of lime—

* Edinburgh Med. and Surg. Journal, vol. lii. p. 586. Dr. Golding Bird has further verified the existence of this substance in a number of cases of pregnancy. He is inclined to consider it as closely resembling caseous matter mixed with abundance of the early phosphates in a crystallized state. In one instance, the pregnant female was laboring under febrile symptoms, and the urine was scanty. Not the slightest appearance of a pellicle could be detected, but on her restoration to health it reappeared. (Guy's Hospital Reports, vol. v. p. 15.) The experiments of Drs. McPheeters and Perry, resident-physicians at the Philadelphia Hospital, on upwards of fifty females, either pregnant or not so, are also decidedly in favor of its occurrence only during pregnancy. (American Med. Intelligencer, vol. iv. p. 369.)

Dr. Letheby found it at all dates between the second and ninth months, in forty-eight out of fifty cases, and also in ten females immediately after delivery. (London Medical Gazette, vol. xxix. p. 505.) Dr. Elisha K. Kane, of Philadelphia, in eighty-five pregnant females, whose urine was examined, obtained a well-marked kiesteine pellicle in sixty-eight; in eleven, it was noticed in a modified form, while in six it was wanting. He also found it in forty-four cases out of ninety-four, during lactation. (American Journal Med. Sciences, N. S., vol. iv. p. 13.)

† Signs of Pregnancy, 2d London edition, p. 306.

these being required for the formation of the bones of the fœtus.

The reader will find in the notes, an analysis of additional observations.

9. I come now to the application of AUSCULTATION to the gravid uterus.

Dr. Kergaradec, of Paris, directed by the brilliant discoveries of Laennec, was the first who fully noticed this subject.* In a memoir read before the Royal Academy of Medicine in 1821, and published in 1822, he developed the leading facts, and has left scarcely anything to future observers than to verify and strengthen his references.

The indications of the presence of a living fœtus in the womb, as derived from auscultation, are two: 1. *The action of the fœtal heart.* This is marked by double pulsations, and it greatly exceeds in frequency the maternal pulse. In the first case noticed by Kergaradec, it varied from 143 to 148 in a minute, while the pulse of the mother was not more than 70. The pulsations may be perceived as early as the fifth, or between that and the sixth month.† Their situation *varies with the position of the child*, and accordingly they are more distinct at one time than another, in the same place, and in different places at different times. Their most general situation, however, is the lower part of the abdomen. The space over which they are perceptible at the latter period of pregnancy is about six inches long, and three or four broad, and their intensity, of course, corresponds with the nearness of the observer to the source of the sounds. In the early months they are necessarily less manifest in each respect. The fœtal cir-

* Dr. Mayor, of Geneva, stated in the *Bibliothèque Universelle*, previous to the publication of Kergaradec, that the fact of a fœtus being alive near the termination of pregnancy might be ascertained by applying the ear to the abdomen of the mother—the pulsations of the heart being then very perceptible. (Kergaradec's Memoir, p. 36.)

† "Most examinations were fruitless before the 20th week." (NÆGELE.) On the other hand, Dr. Van Arsdale cites cases where they were heard at the expiration of 12, 14, and 16 weeks. Probably the statement in the text is the most correct as to the great majority of cases.

ulation does not appear to be affected, in health, by agitation in the maternal. It varies from 120 to 160 in a minute, far exceeding, as already stated, that of the mother.* An opposite case was that by Dr. Ferguson, in which the foetal heart was distinctly heard to beat only 28,† and the mother's 100. From its rareness it is possible that some peculiarity in structure may have been the cause. Dr. Kennedy, however, relates instances in which the mothers were laboring under disease; and the loss of blood, either by hemorrhage or venesection, produced striking changes in the foetal circulation.

2. The second auscultatory sign of the presence of the foetus has been variously termed the *placental sound*, the *placental bellows sound*, the *utero-placental souffle*, and the *uterine murmur* and *uterine sound*. These names have their origin in the diversity of opinion that exists concerning its cause. By some it is referred to the placenta, while others assert that it has its seat in the arteries of the uterus.‡ It is always synchronous with the pulse at the wrist, and changes with every alteration that the pulse undergoes. (*Naegele*.) It varies in tone and intensity, but is generally accompanied with a rushing noise, resembling the blast of a pair of bellows. The place which it occupies is said never to change, (although this is also denied,) but it varies in different individuals, and is seldom so

* The average of the pulsations of the foetal heart, as deduced by Dr. Naegele, from a comparison of 600 cases, is 136 strokes in a minute.

† Dr. Naegele also mentions that he found the heart of a healthy foetus beating not more than 90, during the whole of pregnancy.

‡ Kergaradec considered it produced by the passage of the blood through the placental vessels; Laennec placed it in the uterine arteries; Paul Dubois, in the vascular system of the tissue of the uterus generally; Kennedy, in the uterine arteries, aided probably by the circulation in the maternal placenta; and a recent writer, in the enlarged uterine vessels corresponding to the portion immediately connected with the placenta. "Bouillaud considers it owing to the compression of one or more of the large vessels of the abdomen, as the hypogastric and external iliac arteries, by the uterus charged with the product of conception." Naegele supposed it to be produced by causes existing in the structure of the uterine vessels, such as the tortuousness of the arteries, and perhaps also the dilatation of their cavities and attenuation of their coats.

large in extent as the space in which the foetal heart is perceptible. The time at which it commonly begins to be heard is the end of the fourth month, or as soon as the fundus of the uterus has risen above the upper brim of the pelvis, so that it can be brought in contact with the abdominal parietes, by the pressure of the extremity of the stethoscope.* It is said to be even louder then than at the full term. Certainly at later periods the sound is duller, more diffused, and no longer gives the sensation of being confined to a single artery. Dr. Ferguson observes that he has most frequently found the placental sound in either iliac region, although he has detected it in almost every part of the abdomen.

“The noise of the placenta and the action of the foetal heart are commonly found on opposite sides of the body. This, however, is not constantly the case, for sometimes both the phenomena are audible on the same side, and in one case Laennec and Kergaradec perceived the heart’s action behind that of the placenta—the place where they were examined being the anterior part of the hypogastric region.”

In a case of twins, Laennec detected the pulsation of two foetal hearts by the stethoscope previous to delivery.

3. To these a third sound has been added by Dr. Kennedy, and confirmed by Drs. Dietrich and Naegele, which is said to have its seat in the umbilical cord. It is a single bellows sound, synchronous with the foetal pulsations, and, of course, not with the maternal. The surface over which it is heard is narrow, and extends for a few inches transversely across the abdomen. It is often observed during pregnancy, as well as in labor, and is almost always perceptible when the funis is wound round the body of the child, or when the cord is com-

* According to Dr. Kennedy, (pp. 80, 82,) he distinctly detected it in the tenth, eleventh, and twelfth week. Drs. Montgomery and Velpeau have never succeeded until four months of pregnancy had been completed. Dr. Naegele seldom found it sufficiently distinct to be clearly recognized before the fourth month. In twenty cases out of thirty-five, it was audible at the fifteenth week; in three only, at the fourteenth. Sometimes, he adds, it cannot be heard until the beginning of the fifth month, but in all cases it is audible several weeks sooner than the foetal pulsations.

pressed between the uterus and the back of the foetus. It also changes its place during labor, descending with the progress of that process. Hence pressure, or stretching of the funis, or both combined, inducing a diminution of the calibre of the umbilical arteries, is considered as the cause.*

It must not, however, be imagined that this investigation can be made without attention, or that it is not occasionally liable to doubt. The examiner should be a person well versed in the use of the stethoscope; he should be cautious not to express a positive opinion in medico-legal cases before the fifth month has passed, and he must recollect that in some the foetal pulsations cannot at once be observed. In other instances, sometimes hours, and even days elapse without detecting them, although they had been already noticed. This is attributed to feebleness in the child, to its removal from that side of the body over which its body rested, or to a very copious secretion of liquor amnii. This last will, at all events, render the sounds feebler. They must not be confounded with the action of the mother's heart, which is often distinctly audible in the region of the uterus,† with intestinal motions, or with muscular contractions, produced by the pressure of the stethoscope. Dr. Ferguson suggests that possibly pulsations in the iliac arteries, accompanied with the bellows sound, might be mistaken for the placental souffle. These, however, he adds, would only be noticed in the groin, whereas the noise of the placenta will be heard over a space of some inches in extent. Again, if the placenta be attached to the posterior part of the uterus, especially toward the neck, the thrill may be beyond the reach of the instrument.

The examination may be made either in the sitting, stand-

* Kennedy, p. 121; Dietrich, in *British and Foreign Medical Review*, vol. x. p. 274; Naegele on *Auscultation*, p. 51.

† In such cases, Dr. Kennedy found the sound to become more audible as it was traced from the fundus to the uterus into the maternal cardiac region, and the beats correspond with the mother's pulse. (Page 116.) See also a remarkable case of this description, which occurred to Dubois, in *British and Foreign Medical Review*, vol. viii. p. 371.

ing, or horizontal position. The last is, however, preferred. It has the advantage that it can be used without removing the ordinary dress. Everything in the shape of stays or corsets should, however, be previously put aside.

It is impossible to peruse the cases of Kergaradec, Laennec, Ferguson, Kennedy, Elliotson, De Paul, and Dr. John D. Fisher, of Boston, without attaching great faith to these combined signs. In many instances the female strenuously and indignantly denied the possibility of pregnancy. The foetal and placental actions were, however, present, and in a few months the presence of labor satisfied every doubt. Kergaradec examined a female near her time; the simple souffle was very manifest, but no double pulsation could be discovered. In a few days a foetus, far advanced in putrefaction, was born. May we not conclude with Dr. Forbes, that, although the absence of these signs is not an absolute test of the non-existence of pregnancy, yet their presence, especially that of the heart-sound, is almost infallible?* They do not accompany any other known state or condition of the abdominal organs.†

* There is one circumstance which it is necessary to remember when making an examination *during labor*. It is asserted by Dr. Hamilton, and confirmed by the observations of Dr. Moir and Mr. Syder, that the number of foetal pulsations diminish greatly (sometimes from 120 to between 60 and 70) whenever uterine contraction supervened, and again increased when the contraction is over. Dr. Cummin suggests whether this change is not owing to some preparation of the foetus for the respiratory process. (Lectures in London Med. Gazette, vol. xix. p. 439.)

Dr. Dunglison also mentions some cases where the pulsations of the foetal hearts were *depressed during a pain, and immediately succeeding it*, some forty or fifty beats, but they gradually rose again, and were actually isochronous with those of the foetal cord. (Amer. Med. Intelligencer, vol. ii. p. 309; see also *ibid.*, vol. iii. p. 31; Conradi, in British and Foreign Med. Review, vol. vii. p. 230.)

† The following authorities deserve perusal: The original Memoir of Kergaradec, Paris, 1822; American edition of Laennec, 1830, Appendix; Cyclopaedia of Practical Medicine, art. *Auscultation*, by Dr. Forbes; Dr. Ferguson on Auscultation as the only unequivocal evidence of pregnancy, (Dublin Med. Transactions,) in Select Medico-Chirurgical Transactions, vol. i. p. 172; Dr. Kennedy on the Placental Soufflet, (Dub. Hosp. Reports, vol. v.) in *ibid.*, p. 189; Dr. Adams on Auscultation in Difficult Labor, from Dublin Medical

The lengthened review that has been taken of the signs of pregnancy sufficiently indicates the difficulty that attends the

Journal, (Boston Medical and Surgical Journal, vol. viii. p. 277;) Dr. Montgomery, in Cyclopædia of Practical Medicine; Medico-Chirurgical Review, vol. ix. p. 607; vol. xxi. p. 163; a case is given where the pulsations (supposed to be foetal) were only 128 in a minute. Deeming these too few, the pulse of the mother was examined, and found to be the same. No other sounds could be detected, and the female (as the event proved) was declared not pregnant. Dr. John D. Fisher, in Boston Medical and Surgical Journal, vol. iii. p. 97; Mr. Probart, in London Medical Repository, April, 1828; Dr. Elliotson, in Lancet, N. S., vol. vii. p. 656, a supposed case of dropsy, shown to be pregnancy by the stethoscope; Dr. Naegele, cases of twins, (Lancet, N. S., vol. vii. p. 232.) This author denies that the placental sound is a safe test of the presence of pregnancy. He states that he has met with it when no placenta was present. Analysis of Carriere's Thesis, in Medico-Chirurgical Review, vol. xxvi. p. 509.

Naegele on Obstetric Auscultation, translated by Dr. West; Van Arsdale on *ibid.*, in Forry's New York Journal of Medicine, vol. i. p. 171.

The following should be read in connection with the remarks on the foetal pulsations:—

"It was formerly supposed, that in the full-grown foetus in utero, the heart beat 120 times in a minute. Dr. Heming has ascertained that the pulsations of the funis umbilicalis before birth are precisely half this number, or 60. The pulsation of the foetal heart presents us therefore with the phenomena of 60 beats and 60 *double* sounds, which have been mistaken for 120 beats. Soon after respiration has been established, the number of the pulsations of the heart becomes augmented with the augmented stimulus to nearly double the original number." (Marshall Hall's Gulstonian Lectures, p. 15.)

Dr. M'Keever, on the information afforded by the stethoscope in detecting the presence of foetal life, Lancet, N. S., vol. xii. p. 715; Review of Dr. Hohl, on Obstetric Auscultation, in London Med. Quarterly Review, vol. ii. p. 83, and in British and Foreign Med. Review, vol. i. p. 85; Dr. Robert Collins' Treatise on Midwifery; and last, but among the most important, Dr. Kennedy's and De Paul's separate works on Obstetric Auscultation. For some facts tending to weaken our confidence in this mode of examination, see Dr. Maunsell in Edinburgh Med. and Surg. Journal, vol. xl. p. 362. It would also seem that Velpeau does not agree in considering the *souffle* as peculiar to pregnancy; "as it has been heard in cases where the uterus contained a simple tumor, or even where the ovary was the diseased part." (Lancet, N. S., vol. xiv. p. 246.) Capuron is also a disbeliever in auscultation. [The recent work of De Paul (*Sur l'auscultation obstetricale*) gives a very good resumé of our actual knowledge on this interesting subject.—C. R. G.]

subject. I will not say, as in a previous edition, that there is *no invariable sign of pregnancy*; but I will repeat the caution there given, that the medical witness is called upon to prove its existence on oath. He is, accordingly, bound to weigh all the *possible causes* that may produce these symptoms, and he is to recollect that most of them have proved equivocal. Even the last and the best will require frequent practice to enable the physician to speak with certainty. The female also, in most of the cases, conceals her knowledge of symptoms. It is evident, therefore, that nothing can be lost, but much may be gained by delay; that the examinations should be frequently repeated, and that an opinion should seldom be hazarded before the end of the sixth month, unless the pulsations of the foetal heart are distinctly heard. When it is recollected that he may have the life of a fellow-being, or her property at his disposal, surely he will not desire to be in haste on so important a subject. At the period mentioned, however, he may venture to give a nearly decisive opinion, if it be founded on the presence of most of the leading signs that have been enumerated.

A few remarks are here necessary with respect to *extra-uterine pregnancy*. The early symptoms of it are generally the same as in common gestation; the abdomen and uterus enlarge, the menses are suppressed, the breasts increase in size, and very often the child quickens at the proper time, but is more felt on one side than the other. The distention is also unequal, not occupying the front of the abdomen as in true pregnancy, but inclining either to the left or right. Severe pain, owing to the violent and preternatural distention of the narrow parts in which the ovum is confined, is also a common attendant. The body of the uterus enlarges often in particular parts, and sometimes throughout its extent; but I do not find alterations in the cervix particularly noticed. At the end of eight, nine, or ten months of gestation, appearances of labor come on, and continue for a longer or shorter period of time; the motions of the child cease, and milk is secreted. The case terminates sometimes in death, from the

irritation produced; sometimes the foetus is voided by the natural passages, while it again will remain in the abdomen for years without affecting the health.*

Should the physician, as a medical jurist, suspect the presence of a case of this kind, he can do nothing more than desire a delay until the supposed termination of the gestation. The proofs are not so infallible but that a foetus in utero may possibly be present.

The most difficult case of concealed pregnancy is when it is accompanied with ascites. The motion of the foetus cannot always be perceived; and it is also said by Foderé, that the uterus does not take on its ordinary development. Yet many cases are on record where females with this disease have been delivered of healthy children. In suspected cases the practitioner should weigh the symptoms, and ascertain whether they are all referable to the disease; his medicines should be mild,

* A very full collection of references to cases of extra-uterine pregnancy will be found in the Notes to Burns' Midwifery. See also the Philosophical Transactions, *passim*; and Foderé, vol. i. p. 453; Prof. James, on Extra-Uterine Pregnancy, in the North American Medical and Surgical Journal, vol. iv. p. 277; Dr. Ramsbotham, in Medico-Chirurgical Review, vol. xxi. p. 310. A very remarkable case of pregnancy succeeding to an extra-uterine case, and in which the latter was some years after discharged by an opening at the umbilicus, is given by Dr. Montgomery, Cyclopedia of Practical Medicine, vol. iii. p. 492.

Dr. Ramsbotham mentions a case in his own and father's practice, where three children were successively born of a female in whom an extra-uterine foetus was unquestionably present. He refers to similar cases recorded in the Medico-Chirurgical Review, vol. xxiv. p. 163, (at Dublin;) *ibid.*, vol. xxiv. p. 239, (at Geneva.) "It is a curious circumstance, in the history of these cases, that if the child should live till the time of gestation is completed, as soon as that time has expired, the uterus takes on itself expulsive action, which is attended with pain similar to the throes of labor, and during these pains the deciduous membrane is expelled from the cavity with a slight sanguineous discharge, and the same occurs at the death of the ovum, provided that be premature." (Lectures, London Medical Gazette, vol. xvi. p. 214.) See also a case by Dr. S. W. Williams, of Massachusetts, in which death succeeded a week after the birth of a healthy child. On dissection, the parts of a foetus were found in the left ovarium. (Boston Medical and Surgical Journal, vol. xviii. p. 28.)

and patience practiced as to the event. In many cases the difficulty may be solved by the application of the stethoscope.*

In the sketch now given of the real signs of pregnancy, most of the remarks are directly applicable to concealed or pretended cases. With respect to the latter, I may observe, that in addition to the circumstances already enumerated, the following should also be noticed:—

1. *The age of the individual.*—It is generally conceded that no female can be impregnated, in our own climate, under the age of thirteen, nor above that of fifty, provided she has been previously barren. This, however, is only to be taken as a general rule, subject to exceptions.† [*Early Impregnation.*—

* There are many cases on record of pregnancy complicated with ascites. A Memoir of Scarpa, in Quarterly Journal of Foreign Medicine and Surgery, vol. i. p. 249. He operated with success, and twins were subsequently safely delivered; they died, however, soon after. See Medico-Chirurgical Review, vol. v. p. 500; vol. vi. pp. 265, 506; vol. x. pp. 234, 270; Edinburgh Medical Essays, vol. vi. p. 137; Langstaff, in Medico-Chirurgical Transactions, vol. xii.; North American Medical and Surgical Journal, vol. iv. p. 190; Lancet, N. S., vol. ix. p. 117.—In most of these, the operation for paracentesis was performed, and living children born; they did not, however, usually survive any time.

There are cases of ovarian dropsy, attended with pregnancy, in which a healthy child was born, related by Mr. Robbs, in London Med. Gazette, vol. xxii. p. 930, and Mr. Harding, in *ibid.*, vol. xxvii. p. 168.

† Many cases of birth in advanced age are on record. (See Capuron, pp. 98 and 98.) The succession to an estate was disputed in France, because the mother was fifty-eight years old when the child was born. It was decided in favor of the applicant, because similar instances are mentioned by ancient and modern writers. Smith, p. 493, mentions cases of early and late fecundity. I quote the following because it happened lately: “May, 1816, Mrs. Ashley, wife of John Ashley, grazier, of Firsby, near Spilsby, at the age of 64, was delivered of two female children, which, with the mother, were likely to do well.” (Edinburgh Annual Register, vol. ix. part 2, p. 509.)

And the following is an American case: A woman, at Whitehall, State of New York, named Ann Cook, had a child at the age of 64. She had not menstruated for fifteen years, and her youngest child is twenty-six years old. The child was born in February, 1836, and was doing well. (Boston Med. and Surg. Journal, vol. xiv. p. 79.)

For several instances of menstruation at advanced periods of life, (between seventy and eighty-seven years of age,) I refer to Mr. Semple's paper in the London Med. Gazette, vol. xv. p. 467.

Additional cases occurring in Germany, are quoted in the British and

A female negress is now (Oct. 1862,) under my observation, in whom impregnation took place at twelve years of age.—C. R. G.] The presence of menstruation, in every country, constitutes the state of puberty; and the irregularity of its occurrence is noticed by most practitioners. It is to be regretted, however, that so few have given the result of their observations. Out of 450 cases investigated at the Manchester Lying-in Hospital, in England, the following results were obtained:—

The menstruation began in the

Eleventh year, in.....	10	Sixteenth year, in.....	76
Twelfth.....	19	Seventeenth.....	57
Thirteenth.....	53	Eighteenth.....	26
Fourteenth.....	85	Nineteenth.....	23
Fifteenth.....	97	Twentieth.....	4

Again, out of 10,000 pregnant females registered at the same hospital, 436 were upwards of 40 years of age;

397 from 40 to 46.	9 in their 50th year.
13 in their 47th year.	1 “ 52d “
8 “ 48th “	1 “ 53d “
6 “ 49th “	1 “ 54th “

Mr. Robertson also adds, that so far as he could ascertain, and particularly in the three cases above fifty years, the catamenia continued up to the period of conception.*

Foreign Medical Review, vol. v. p. 256. One is of a female who ceased to menstruate at forty-two years of age. She continued in good health to her eightieth year. At this time (1832) she was attacked with colic pains, the menses returned, continuing as formerly, for about four days, and regularly recurring until August, 1835. From that time they disappeared. This individual died in the beginning of 1836. Also, case by Dr. Brown, of Glasgow, London Med. Gazette, vol. xxi. p. 730; by Dr. Petersen, of a female, aged 79, British and Foreign Med. Review, vol. x. p. 560; by Dr. Le Conte, of a female aged 70, in whom they returned after an absence of twenty years, after being struck by lightning, and continued regularly for upwards of a year. (Ferry's New York Journal of Medicine, vol. iii. p. 297.)

See also British and Foreign Med. Review, vol. vi. p. 80; American Journal Med. Sciences, vol. xxii. p. 454. Some of the cases may, however, have been hemorrhage from the uterus.

* See Mr. Robertson's papers on the natural history of the menstrual

"In the statement sent to Parliament by Bartholomew Mosse, when endeavoring to procure a grant for the Dublin Lying-in Hospital, he mentions that eighty-four of the women delivered under his care were between the ages of forty-one

function, in *Edinburgh Medical and Surgical Journal*, vol. xxxviii. p. 227; and also on the period of puberty, in *North of England Medical and Surgical Journal*, p. 69. Mr. Robertson endeavors to combat the prevailing idea, that climate has an effect on the period of puberty. His historical testimony goes to show that it sometimes is as early in northern as in southern countries; and if any general cause is to be assigned for precocity, certainly the one suggested by him, of early licentiousness, or even connection, is the most probable. Mr. Robertson mentions the case of a girl who worked in a cotton factory, becoming pregnant in her eleventh year. When in labor, she was seized with convulsions; but ultimately, without unusual difficulty, was delivered of a full-grown child, still-born. The fact was perfectly ascertained, by a reference to the church register, that at the time of her delivery, she was only a few months advanced in her twelfth year. She menstruated before she became pregnant.

There are, however, some facts contradicting the opinion of Dr. Robertson, as in the following:—

"The author has known the instance of a European child who went to the East Indies at the age of six, in whom menstruation took place at the ninth year, and continued to occur regularly during three months; but the child then returning to a more temperate climate, the secretion ceased, and has not yet returned. The child is now twelve." (C. M. Clarke, part i. p. 12.)

"Heat, whether natural or artificial, seems to produce sexual maturity in the animal body, in a way, perhaps, analogous to that which it performs on the same principle in the vegetable kingdom. Bruce mentions that, in Abyssinia, he has frequently seen mothers of eleven years of age. In Bengal, I have seen many girls come to the age of puberty at that period, and sometimes a mother under the age of twelve. I formed an opinion, though perhaps I had not a sufficient number of facts to bear me out in it, that precocious pubescence was to be found more frequently among an unfortunate class of females who are sold when very young by their parents, for the purpose of prostitution, and who, being brought up in the stews, their passions are daily excited by voluptuous and licentious scenes. In Manchester and Glasgow, the girls who work in the cotton mills, which are of necessity kept at a high temperature, and where morality is not at a much higher pitch than in a Rhindy Ghurr in India, the same effect obtains." (DUNLOP.)

See also Davis' *Obstetric Medicine*, p. 226, etc. Dewees (*Hays' Cyclo-pedia of Practical Medicine*, vol. i. p. 344) denies the correctness of Mr. Robertson's opinion, from his own observation on this continent; and there certainly cannot be a better field for examination. Dr. Ramsbotham, also,

and fifty-four; four of these were in their fifty-first year, and one in her fifty-fourth.”*

Osiander noticed at Gottingen, out of 137 females, that nine menstruated at 12, eight at 13, twenty-one at 14, thirty-two at 15, twenty-four at 16, eleven at 17, eighteen at 18, ten at 19, eight at 20, one at 21, and one at 24. At Paris, according to Velpeau, the function occasionally commences at 10, 11, or 12 years; but generally between 12 and 16.†

Professor Hohl, of Halle, out of 195 cases, found that

3 menstruated at.....12 years.		11 menstruated at.....19 years.	
10	“13 “	12	“20 “
27	“14 “	5	“21 “
33	“15 “	2	“22 “
41	“16 “	1	“23 “
28	“17 “	1	“24 “
21	“18 “		
		195	

The menses returned in

5 cases.....every 14 days.		1 case.....from 4 to 12 weeks.	
43	“ 3 weeks.	1	“ “ 4 to 18 “
138	“ “ 4 “	1	“ “ 6 to 10 “
1	“ “ 6 “	1	“ “ 8 to 12 “
2	“from 2 to 4 “		
2	“ “ 3 to 4 “		
		195‡	

I observe, (London Medical Gazette, vol. xii. p. 269,) in his Lectures, doubts it.

In another paper, (Edinburgh Med. and Surg. Journal, vol. lviii. p. 112,) Mr. Robertson adduces facts obtained from missionaries residing in the West Indies, relative to the period of puberty in negro women. They go to show that the period of maturity with them does not vary from that of Europeans.

Among extraordinary cases connected with the history of menstruation, I may refer to one occurring in Italy, where the function continued from the fifty-third to the ninety-fourth year, without injury to health. (American Journal of Medical Sciences, vol. vii. p. 513.)

* Cyclopaedia of Practical Medicine, vol. iii. p. 491. Dr. Montgomery adds a case, on the authority of Dr. Labbat, of Dublin, of a female marrying at forty, and conceiving and bringing forth a living child for the first time when past the age of fifty.

† Velpeau's Midwifery, p. 84. Osiander's numbers amount to 143, and it is hence possible that there may be some misprint.

‡ British and Foreign Medical Review, vol. i. p. 103; see also the Re-

I will only add, in this place, the following results obtained by Prof. Murphy:—

2. *Menstruation*.—Dr. Murphy has ascertained *the age* at which this function commenced in 559 individuals. This inquiry has been already pursued in 450 instances by Mr. Robertson, and in 1160 by Dr. Lee. A total of 2169 cases shows “that there is a great variety in the age at which the catamenia first appears; 9 years [14 cases] and 23 years [1] seems to be the extremes; the most frequent period of its occurrence is between the ages of 12 and 18; and of those recorded, it commenced in the greatest number of instances [417] at 15.”

1. *The interval* of the catamenial function was recorded in 591 cases by the author, and by Mr. Robertson in 100. In 557 of those cases, the interval was found to be 28 days; in 105 it was 21 days; and in the remaining 29 it was irregular, varying from 14 days to 42. It should be observed, that Dr. Murphy’s inquiries were addressed to pregnant females, in whom probably the menstrual period would be found to have been more regular than in the same number of females taken indiscriminately.*

Although impregnation is supposed to depend on menstruation, yet there are cases on record where females have become pregnant without ever menstruating. Sir E. Home, in the Philosophical Transactions of 1817, mentions the instance of a young woman who married before she was seventeen, and although she had never menstruated, became pregnant. Four

searches of Petrequin and Brierre DeBoismont in France, *Medico-Chirurg. Review*, vol. xxxiii. p. 605, and vol. xl. p. 377; and of Adelman, of Fulda, in *Edinburgh Med. and Surg. Journal*, vol. lvi. p. 298; I have condensed the results obtained by these in the *American Journal Medical Sciences*, N. S., vol. iv. p. 213; Dr. Robert Lee, in *London Med. Gazette*, vol. xxxi. p. 162; Brierre DeBoismont, in *Edinburgh Med. and Surg. Journal*, vol. lix. p. 219; Paget, in *British and Foreign Medical Review*, vol. xvii. p. 275; Dr. Charles Bell, in *Edinburgh Med. and Surg. Journal*, vol. lxii. p. 324; see *Copland’s Dictionary*, vol. ii. p. 833, for a condensed table.

* *Lancet*, November 30, 1844.

months after her delivery, she became pregnant a second time; and four months after the second delivery, she was a third time pregnant, but miscarried. After this, she menstruated for the first time, and continued to do so for several periods, and again became pregnant.*

* See Foderé, vol. i. p. 396; Capuron, p. 96, for similar cases; also Moseley on Tropical Diseases, pp. 103, 104. "Ego habui amicam laudabilis temperamenti et complexionis, quæ octo filios tulit consequenter, id est, omni anno unum, nunquam tamen visa una gutta sanguinis menstrui." (Low, p. 523.) Impregnatio nullis unquam previis menstruis (Stalpart, vol. ii. obs. 31.)

"I knew a noble virgin, who, being married before her menses (which had been expected for many years) appeared, was, nevertheless, very fruitful; and that we may be the less surprised thereat, the very same thing had likewise happened to her mother." (Morgagni, Epistle 47.) Velpeau also mentions a case at Tours. Additional cases are quoted in *Cyclopedia of Practical Medicine*, art. *Pregnancy*, by Dr. Montgomery.

Dr. Dewees denies that impregnation can take place without menstruation, (p. 59.) He attributes the rare case noticed to some imperfections of the genital organs. The discharge may also in some instances have been colorless.

Cases of the absence of menstruation for some years previous to pregnancy are given by Professor James, of Philadelphia; Hosack's Medical and Philosophical Register, vol. iv. p. 222; by Dr. Hosack, Eclectic Repository, vol. ii. p. 119; by Dr. Merriman, in Medico-Chirurgical Transactions, vol. xiii. p. 347; by Dr. Campbell, Midwifery, p. 49. He is acquainted with a female to whom eight children have been born, at the full time, "without having any monthly indisposition between any of the births."

By Mr. Reid, of London, who mentions the case of a female who, "during the period of nine years that she had been married, had never seen the catamenia until she became pregnant with this last child, after which, up to the term of quickening, they appeared regularly every month." She had several children previous to the one whose delivery forms the subject of Mr. Reid's communication. (London Med. Gazette, vol. xvi. p. 144.)

By Dr. Montgomery, (Signs of Pregnancy, p. 43,) a female laboring under disease of the heart, which had induced dropsy, and had no menstrual discharge for two years previous to conception. Her pregnancy was not even suspected till she had miscarried of a foetus of five months.

By Mr. Harrison, of the mother of a large family, who had never menstruated, *Lancet*, N. S., vol. xxiii. p. 619; by Mr. Pearson, also the mother of a large family, aged 44, who had not menstruated since July, 1838, yet was delivered of her tenth child on the 31st of December, 1839, *ibid.*, vol. xxv. p. 648; by Dr. Fletcher, of Vienna, *London Med. Gazette*, vol. xxvii. p. 557. This female had not menstruated for thirteen years, and yet during

2. We should ascertain whether any of the causes of sterility, as already enumerated, be present.

3. Women often fancy themselves pregnant when the menses cease. This great change in the system often produces enlargement of the abdomen, nausea, and the breasts fill with a milky fluid. Caution is necessary in such cases, in giving a decided opinion; and Van Sweiten mentions two, which teach a valuable lesson. A female had a son when she was twenty-five years of age; twenty years after, she declared herself pregnant a second time. This was disbelieved by all, but it was verified in due season. Again, a female had been delivered of fourteen children, and might hence be supposed to be well acquainted with the signs of pregnancy. After the birth of the last child, the menses ceased for eight years; and at the end of this time she supposed herself again pregnant; but a few months reduced her size, and showed that she was mistaken. A torpid state of the uterus, combined with intestinal flatulence, appears to be the principal cause of these sensations. "At this time (says Dr. Gooch) menstruation will often cease for several months, and the abdomen become distended with a flatulent tumor; the air moving about the bowels gives an inward sensation, which is mistaken for the child; there is often slight nausea, various nervous feelings, and an anxiety to believe in pregnancy as a test of youthfulness. About this age, also, the omentum and parietes of the abdomen often grow very fat, forming what Dr. Baillie once called 'a double chin in the belly.' This assemblage of symptoms at this age frequently leads to the supposition of pregnancy."* The case of Joanna Southcott is sufficient to

that period had six children. She had never noticed any discharge that could be considered as vicarious of menstruation.

By Dr. Legros, a female ceased to menstruate at 41; two years after, she became pregnant, and was delivered of a full-grown child, *Lancet*, Oct. 28, 1843; a case in *Modern Greece*, *Edinburgh Med. and Surg. Journal*, vol. lxii. p. 7; see also *Archives de la Medecine Belge*, vol. xi. p. 424, for several cases.

* Gooch's *Diseases of Women*, p. 226. He adds, that he has met with similar cases in young women, owing probably to obstructed menstruation, but aggravated by mental agitation.

show the delusions that have happened, and undoubtedly will again happen.*

4. There are various substances or fluids formed in the uterus which cause the female to imagine that she is in this state. Of this description are moles and hydatids. The term *mole* does not appear to be very accurately defined. I shall understand by it, a fleshy substance contained within the cavity of the uterus—enveloped in a membrane, and generally filled with blood or serum. On cutting into it, various parts, resem-

* *Joanna Southcott*.—I copy from a magazine, published in 1815, the following certificate of the examination of the body of this female, who had numerous followers in her day in England, and who, for a long time, declared herself pregnant of a child that was to be the *Saviour of the world*. Her deluded disciples did not abandon the belief until death took her from them:—

“We, the undersigned, present at the dissection of Mrs. Joanna Southcott, do certify that no unnatural appearances were visible, and no part exhibiting any visible appearances of disease sufficient to have occasioned her death; that a number of gall-stones were found in the gall-bladder, and the intestines were unusually distended with flatus, and no appearance of her having been pregnant. The uterus was not distended, enlarged, or diseased, but, on the contrary, rather smaller than the usual size.”

Signed by Dr. Reece, Dr. Sims, Dr. Adams, Mr. Clarke, Mr. Want, Mr. Cooke, Mr. Stanhope, Mr. Caton, Mr. Phillips, Mr. Darling, Mr. Forster, Mr. Whetherall, Mr. Stanton, Mr. Wagstaffe, Mr. Wilkinson.

Braithwaite's Restrospect, No. xxii. p. 314, copies from the Monthly Journal, July, 1850, on the authority of Dr. Keiller, a case of spurious pregnancy, when labor was supposed to have come on; and the protracted character of this labor, and the difficulties which seemed to environ the case, led the attending accoucheur to suppose that the immediate and unavoidable performance of the *Cæsarean section* was necessary! Dr. K. was called in consultation, and found the uterus evidently unimpregnated; and the patient finally recovered entirely without obstetrical aid.

“In such instances, the greater number of the rational signs must be considered as entitled to little or no consideration, if not altogether disregarded, and our reliance should be placed on careful manual examination, by which the abdomen, however enlarged, is found soft, puffy, and compressible, the umbilicus sunk, no abdominal tumor, and the uterus per vaginam unaltered.”

Dr. Montgomery, however, from whom I have just quoted, advises that we should not deny the existence of pregnancy, but treat the case for a time as if the female were pregnant, and at the same time exhibit such medicines as will improve the general condition of the system.

bling an imperfect foetus or its membranes, will be observed. The symptoms produced are similar to those of pregnancy. The stomach is affected, and the breasts and belly enlarge. It is sometimes as large at the second month as in the fifth of regular gestation. The mole generally comes away at the third or fourth month, although in some cases it has not been evacuated until the sixth or seventh, and it is even said to have been retained for years.* [Moles are now universally admitted to be products of conception—blighted or degenerated ova.—C. R. G.]

This term has also been applied to those coagula which not unfrequently accompany the process of menstruation, and which appear to have remained so long in the uterus as to have retained the fibrous part of the blood only. Many unmarried females discharge these, and they should be accurately distinguished from the former. The one is to be deemed the product of conception, and the other not. And these bloody coagula are wanting in the characteristics of a true mole, viz., the fleshy texture and the enveloping membrane.

The authorities on which I arrive at this conclusion are here subjoined:—

“True moles are distinguished from the false, and other growths of the uterus, by their not deriving their origin from the substance of the womb, or its membrane, but by their being always the consequence of conception.” (Voigtel’s *Pathological Anatomy*, in *Edinburgh Medical and Surgical Journal*, vol. xi. p. 99.) “It is the opinion of many, that these substances are never formed in the virgin state, and no case that I have yet met with contradicts the supposition.” (Burns, p. 79.)

* A case examined before the parliament of Paris, in 1781, in which the female sued for damages for seduction. Twenty months after this was alleged to have been committed, she brought forth a mole. The parliament very properly decided against her, on the score of character; but they added, what may be questioned under the present acceptation of the term, *that unmarried females, and even nuns, have discharged moles, without any previous criminal connection.* (Foderé, vol. i. p. 477.)

Madame Boivin divides all the species into three classes. 1. The false germ or blighted ovum. 2. The fleshy mole. 3. The vesicular mole, (hydatids.) Of fleshy moles, two kinds are described: one hollow in the centre, the other solid, in both cases a degeneration of the envelopes of the foetus. (Edinburgh Medical and Surgical Journal, vol. xxxix. p. 217.)

Moles are of three kinds. 1. A foetus so vicious in formation and imperfect in development, that it in no degree resembles a human being, but is an organized, though shapeless mass of flesh. 2. The false germ of Madame Boivin, the membranes appear perfectly formed, but the embryo is wanting. 3. The embryo has died early, but the ovum has been retained and increased in size and solidity. "I presume that each of the three kinds I have specified is always the result of sexual intercourse." (Dr. F. H. Ramsbotham, London Med. Gazette, vol. xvi. p. 609.)

Fleshy moles. "Though these substances are invariably the result of conception, it is not certain that they are formed by the growth of the membranes subsequent to the death and expulsion of the embryo. In several cases of this description, no embryo was at any time discharged." (Cyclopædia of Practical Medicine, art. *Abortion*, by Dr. Robert Lee.)

"Le developpement des masses d'hydatides," says Desormeaux, "est le plus souvent, sinon toujours, la suite de la conception." (Orfila, Leçons, second edition, vol. ii. p. 220.) He says that Velpeau entertains a similar opinion.

Candor, however, obliges me to add that some observers believe that they may occur in chaste females. (Gordon Smith, p. 298.) Dr. Churchill, (Diseases of Females, chapter 12,) although decidedly of opinion with Madame Boivin, quotes several of a contrary belief.

Dr. Blundell thinks that fleshy substances are formed in the uterus of pure females, which resemble in structure the placental part of the ovum in the earlier months. "To my knowledge, they form month after month in unmarried females of undoubted honor." In some instances, however, he allows that they are blighted ova, the result of intercourse. (Lancet, N. S., vol. iv. p. 225.)

Murat, art. *Grossesse*, (Dictionnaire des Sciences Medicales,) appears undecided; while in art. *Mole*, he advocates the prevailing idea.

M. Lisfranc has no doubt, if the embryo dies, it may become extremely atrophied, or even disappear entirely, while the placenta, which still retains its connection with the uterus, may increase and become altered in its structure. He believes that moles are sometimes thus formed, as he has dissected several wombs which contained placentas in which not a vestige of an embryo could be discovered. But he is also of opinion that moles may be formed independently of conception or sexual connection, and he then attributes their origin to coagula of blood which have become organized. Thus he has seen females long affected with menorrhagia, during which they abstained from sexual intercourse, subsequently void moles, and, on dissecting a young girl who died from the consequences of imperforate vagina, he discovered a mole in the uterus.

M. Lisfranc discusses the circumstances that have been supposed to distinguish moles from pregnancy, and comes to the conclusion that the diagnosis of the former affection is difficult, or, more properly speaking, impossible; the utmost that can be done is to calculate probabilities after having carefully weighed all the symptoms.*

* British and Foreign Med. Review, vol. xviii. p. 19. Dr. Granville proposes a distinction, in his work on Abortion, in the following words: "What, then, is the distinction between a real mole and a coagulum, no matter of what species or variety the latter be? It is this: that the former has invariably a central cavity, wholly inclosed, *without any opening or aperture*; whereas the latter, let it be formed in any way you please, stratified, laminated, concentric, membranaceous, solid, hollow, or with a regular cavity lined with a membrane, no matter—will be found invariably to have at one of its extremities an *aperture*, either leading straight into the inner cavity, where such a one exists, or simply passing from one membrane or stratum of coagulated blood to the next, until it reaches the innermost, which is also perforated like the rest. This is a striking and important distinction; and I am not aware that it has been noticed or made public by any author before me." (Page 50.) Orfila, Leçons, 3d edit., vol. i. p. 287, also mentions this cavity.

The true distinction is, however, undoubtedly taken by Mahon, (vol. i. p. 274.) "The existence of moles, properly so called," says he, is "extremely doubtful, since they may all be referred to some one or other of the substances of which we have spoken, viz., a placenta which had continued its growth, the foetus having perished; the degenerated remains of the after-birth; coagulated blood; sarcomatous tumors or polypi of the uterus. The two first cannot exist, except after sexual intercourse; the other three may be found independently of it."

With Dr. Montgomery, to whom I am indebted for the reference, I entirely concur in this view, and add in his words, that no medical jurist would be justifiable in pronouncing any such mass expelled from the uterus a proof of pregnancy, except he can detect in it either the foetus or a part of it, or some other of the component parts of the ovum. But it must also be recollected, that in many of these cases no trace of a foetus can be discovered, it having been completely destroyed, and only its membranes and the placenta continuing to grow for some time, and becoming thickened and fleshy, or filled with fluid.

We have already remarked, that a true mole may be mistaken for real pregnancy during some months. By, however, attending to the following circumstances, the difficulty may in some degree be solved. The early and rapid increase in the size of the uterus, the sensation of pressure which often produces pain, and the want of motion when examining the uterus. This last, however, is seldom applicable, since the investigation is usually made in the early stages. Foderé adds, that the breasts are not filled with a milky, but with serous fluid, and that the female often experiences violent convulsive motion in her abdomen.* Occasional discharges of blood *per vaginam*, during the gestation of the mole, are not uncommon.

Hydatids, or dropsy of the uterus, which by many are con-

* Foderé, vol. i. p. 469.

sidered as synonymous,* are generally supposed to proceed from the chorion, degenerated during the process of preg-

* See Denman, p. 148, and the opinions of Drs. Baillie and Sprengel there quoted in favor of this belief. Dr. James, Professor of Midwifery in the University of Pennsylvania, has advocated a similar opinion. (*Eclectic Repertory*, vol. i. p. 499; see also *Cyclopedia of Medicine*, art. *Hydatids*, by Dr. Kerr, vol. ii. p. 449.)

"It is more than probable that the cases described as dropsy of the uterus have belonged to the class of hydatids; or, if there be any such disease in fact as dropsy of the uterus, the author has never met with a case of it." (C. M. Clarke, part ii. p. 126.) Dr. Ramsbotham concurs in opinion with Sir Charles Clarke, and says he has never met with a case. (*London Med. Gazette*, vol. xvi. p. 614.)

John Burns, however, considers them as distinct diseases; and the remarkable case of Dr. A. T. Thomson (*Medico-Chirurg. Transactions*, vol. xiii. p. 170) shows that *hydrometra* may exist independent of hydatids; so also in the case examined by Dr. Coley, (*Transactions Provincial Med and Surg. Association*, vol. iv. p. 357.) There is certainly one condition that is undoubtedly distinct from what we understand by *hydatids*. It consists in an enormous collection of the liquor amnii, to the amount sometimes of three or four gallons. Here a fluctuation may be felt, as if the female were dropsical, and unless aware of the possibility of its occurrence, the operation might be rashly hazarded. Dr. Blundell suggests, as a discriminating circumstance, that the enlargement here is often very sudden. Its real nature, however, must be ascertained by an examination of the parts.

Dr. Haighton was sent for, to a case where, in the middle months of gestation, a female labored under great swelling of the abdomen, which fluctuated distinctly. The surgeon associated with him proposed an operation. It was delayed, and during the night "the membranes which contained all this water burst of themselves, a flood of fluid was discharged, the abdomen rapidly collapsed, a foetus issued not larger than the first joint of the finger, and the patient did well." (Blundell's Lectures, *Lancet*, N. S., vol. iii. p. 98.)

There is a remarkable case of an enormous discharge of fluid, during and after delivery, unaccompanied with hemorrhage, related in the *Lancet*, N. S., vol. xxiii. p. 355, by Dr. Reid. It proved fatal in a few hours. No dissection could be had.

Dr. Ligget reports a case like Dr. Haighton's. He calls it "*Dropsy of the ovum*." A female, in the sixth month of pregnancy, had all the appearances of the dropsy. She was treated for it with medicines and improved, but in a few days pains came on; water was discharged in large quantities, to the amount in all of several gallons. A well-formed foetus, twelve inches long, accompanied the discharge. It survived fifteen minutes. Not long after, a smaller foetus was delivered. She recovered, after suffering

nancy.* It is not necessary to proceed to a minute description of them, but we may observe that usually these watery

under irregular contraction of the uterus. (Medical Examiner, Philadelphia, vol. viii. p. 529.)

Cases resembling the above are related by Mr. Wildsmith, of Leeds, *Lancet*, N. S., vol. iv. p. 740; by Mr. Ingleby, in his work on Uterine Hemorrhage, *Medico-Chir. Review*, vol. xxi. p. 218; by Dr. Ramsbotham, in his *Observations on Midwifery*; *ibid.*, pp. 312-314; by Mr. Fell, in *Edin. Phys. and Literary Essays*, vol. ii. p. 374.

Several cases of presumed hydrometra, collected by Dr. Tessier, are referred to in *Medico-Chir. Review*, vol. xlv. p. 489, (from *Gazette Medicale*.) It is there also stated that Stoltz and Naegele have expressed their disbelief in the existence of this disease, except in connection with pregnancy, because the uterus is a mucous and not a serous membrane—because its dense structure would present an insurmountable obstacle to its dilatation by the fluid—because the fluid would escape—and because, as they allege, no authentic case of the disease has yet been recorded.

M. Lisfranc, however, details two cases of hydrometra, in both of which the absence of pregnancy was satisfactorily ascertained.

* “As in other parts of the body we find hydatids without there having been a connection between the sexes, so in the uterus, I presume, they may be formed without intercourse; *but in general they are the result of impregnation.*” (Blundell, *Lancet*, vol. iv. p. 226.) It is probable that the existence of pregnancy is not necessary for the production of the disease. (C. M. Clarke, part ii. p. 115. Dewees (*Diseases of Females*, p. 298) is of the same opinion.

Madame Boivin, however, in her *Essay on the Vesicular Mole*, opposes the idea of its consisting of hydatids, and deems it a degeneration of the impregnated ovum. In proof of this, she refers to the mass of vesicles being enveloped in a membranous sac, consisting of two layers, one resembling the decidua reflexa, and the other the amnios. Of course she considers it invariably the result of sexual intercourse. (See her “*Nouvelles Recherches*,” etc., and *Edinburgh Med. and Surg. Journal*, vol. xxxiv. p. 382.) To the question put in the former edition—*Whether there was any case in which an examination had been made on the virgin female laboring under this disease; and if so, whether the parietes of the uterus enlarged as in real pregnancy?* Madame Boivin at least gives an unequivocal answer: “En effet, il nous paraît toujours très-difficile de déterminer d’une manière absolue l’état de virginité d’une fille, cloîtrée ou non, chez laquelle s’est développé l’utérus comme dans une grossesse fœtale de neuf mois.” Not only the uterus, but all the organs sympathizing with it, develop themselves; and, whatever may have been the antecedent circumstances of the individual, these combined say little in favor of her chastity. (*Recherches*, p. 20.)

Velpéau, in his recent work, observes, as the result of his numerous ex-

vesicles hang together in clusters, occupy a considerable space, and produce a corresponding distention. Their early

aminations, that "les hydatides en grappe de l'utérus n'étaient pas de vers vésiculaires, comme on croit généralement; mais bien le produit d'un œuf avorté, dont les petits corps gangliformes ont pris un accroissement qui ne leur est pas ordinaire." (Embryologie, p. 10.)

To this testimony, I add the decided opinion of Dr. Montgomery, who, after quoting Baudelocque, Voigtel, Desormeaux, Velpeau, and Madame Boivin to the same effect, remarks: "Our own belief is, that uterine hydatids do not occur except after sexual intercourse, and as a consequence of impregnation. We never met or heard of a case in which their presence was not accompanied or preceded by the usual symptoms of pregnancy; and in every instance under our immediate observation, the women supposed themselves with child; and when the contents of the uterus were expelled, there was found either a blighted fœtus, or some other part of the ovum." To the argument from analogy, and which may be seen above in the observations of Dr. Blundell, he replies, that the hydatids in the respective cases greatly differ; and, above all, that they are always formed in connection with serous membranes, which do not exist in the uterus until the ovum is deposited there, whose membranes are essentially serous.

At a later period, however, than any of the above writers, Dr. F. H. Ramsbotham has published the following remarks: "It is the opinion of Madame Boivin, and some able physiologists, that these bodies cannot be formed independently of pregnancy; while others, with Percy, hold a different doctrine. I am myself inclined to the belief that they may be formed in the virgin uterus, and think the membranous substances secreted in one variety of dysmenorrhœa very likely to lay the foundation of the disease. This fact, indeed, seems proved by cases lately reported in the Glasgow Medical Journal, by Dr. Andrew. Two out of four instances of uterine hydatids, which he there records, happened in the persons of young unmarried girls, of respectable character, aged sixteen and seventeen, and in one there was present a perfect hymen." (Lectures, London Med. Gazette, vol. xvi. p. 613; see also Dr. Ingleby, in Lancet, N. S., vol. xxvi. p. 76.)

Lisfranc, while he admits that the clustered hydatids always originate from pregnancy, asserts that true hydatids may exist in the virgin uterus; and in proof, quotes a case from Percy.

In the first number of Cruveilhier's Pathological Anatomy are two plates, illustrative of this disease, which strikingly elucidate its nature. The female had hemorrhagic discharges, with pain, at the fourth month, which continued at irregular intervals until the seventh, when the placenta, transformed partly into a mass of hydatids, was discharged with severe pain. A fœtus of the size of the *fifth or sixth week* was found by cutting into the chorion.

symptoms are those of pregnancy.* The uterus enlarges; the breasts swell; milk is occasionally formed; sometimes there is an alternate discharge of serous fluid and blood from the vagina. Dr. C. M. Clarke considers the occasional and sudden discharge of an almost colorless and inodorous watery fluid as a diagnostic symptom, while Madame Boivin relies much on the want of the signs of a fluid in the uterus, or of a solid body floating in a fluid, when the patient is examined by the touch. At the accustomed time no motion is felt. There is no certain time for their discharge. Sometimes, however, they do not come away until some period after real pregnancy would have been accomplished. Their expulsion is attended with pain, often of the severest kind, and generally with hemorrhage.† An instructive case is related by Dr.

Dr. Ashwell (Diseases of Females) mentions having met with one case, in a widow of unblemished reputation, in whom they occurred two and a half years after the death of her husband. And he states another, occurring to Mr. Douglas Fox, where a large mass of vesicular hydatids were expelled from the uterus of a maiden lady, in whom the hymen was unruptured.

Boston Medical and Surgical Journal, vol. xxxii. p. 473. Two cases by Dr. Evans, of Indiana, from Illinois Medical and Surgical Journal. In one, hydatids had been discharged, but the patient continued subject to uterine hemorrhage, of which she died after some months. On dissection, hydatids were found imbedded in the parietes of the uterus. In the other, a female, aged 55, discharged a mass of hydatids. The menses had ceased previous to this, but they returned regularly after the hydatids were discharged.

* Clarke, part ii. p. 118. Edinburgh Medical and Surgical Journal, vol. xxxiv. p. 482; Davis' Obstetric Medicine, p. 677. This author is also very decided in his opinion. "They are generally the accompaniments, as also probably the results, of blighted and other diseased forms of eventually unproductive gestations; or if we admit the fact of their being ever produced independently of any connection with a contemporaneous gestation, the author feels disposed to the opinion that they must be the result of conceptions of antecedent dates." See also Mr. North, London Med. Gazette, vol. xxvi. p. 361, and Dr. Waller, in Lancet, N. S., vol. xxvi. p. 391.

† Mr. Watson (Philosophical Transactions, vol. lxi. p. 711) relates a case of this description, in a female forty-eight years old. There was no enlargement of the abdomen or of the breasts; and she attributed her symptoms to a cessation of the menses. The hydatids were united, like a cluster of grapes, to a spongy substance.

Eights, where the female conceived herself pregnant, but felt no motion, and at the end of eight months was seized with pain, and occasional watery discharges. This continued some time, and then ceased. A month after, she was attacked with labor-pains, and discharged about a gallon of hydatids. On the third day after this, there was a copious secretion of milk.* Mauriceau also states the case of the wife of Presi-

* American Med. and Philosophical Register, vol. iv. p. 519; Dr. Davis's (Obstetric Medicine, p. 679) reference to this case is incorrect.

For additional instances, see Dr. William Moore, in New York Medical and Physical Journal, vol. i. p. 151; Dr. James Clarke, in Edinburgh Med. and Surg. Journal, vol. v. p. 257; Ibid., vol. xxix. p. 217; (a case from Rust's Magazine;) Mr. Wildsmith, in Lancet, N. S., vol. iv. p. 739; Mr. Cusack, in Dublin Hospital Reports, vol. v.; Madame Boivin's Essay; Dr. Ashwell, in Guy's Hospital Reports, vol. i. p. 129; Dr. Chowne, Lancet, October 28, 1843, and November 18, 1843; Dr. John H. Griscom, in New York Journal of Medicine, (Ferry's,) vol. ii. p. 336; Medical Times, November 4, 1843, p. 66; Med. Examiner, vol. viii. p. 73; case by Dr. J. K. Mitchell: this case proved fatal, after the discharge of many thousand vesicles, constituting the true cluster of grapes hydatid; no ovum was found, but the hydatids adhered to the membranes and a perfect corpus luteum was present; Boston Med. and Surg. Journal, vol. xxxii. p. 17; cases by Dr. Morris; a case by Mr. Watson, of Warwick; the female was twenty-two years old, and has been married nearly ten months; she had no suspicion of being pregnant, and the marks present were at least equivocal; there was no *membranous* bag investing the hydatids, and the hemorrhage succeeding was very slight; milk was secreted on the second day, and the lochia were present; Trans. Provincial Med. and Surg. Association, vol. ii. p. 349; a case with all the usual symptoms of pregnancy, by Dr. Hooker, of New Haven; Boston Med. and Surg. Journal, vol. xvi. p. 91; Orfila, Leçons, third edition, vol. i. p. 294.

Several instances are also related in Dr. Rutter's valuable essay on the case of Miss Burns, which I shall notice hereafter.

When the question relative to the origin of moles and hydatids shall be settled, we shall be better enabled to answer the question lately put in the Boston Medical and Surgical Journal, vol. viii. pp. 71, 124: *Whether hemorrhage from the unimpregnated uterus ever occurs?* That it is rare, is, I believe, not doubted. Dr. Ashwell, however, (Guy's Hospital Reports, vol. iii. p. 137,) relates several instances of such hemorrhage, associated with tumors in the uterus of varying degrees of induration and malignity. It is proper to add that all the cases are of married females, some having been pre-

dent de Nemours, who was considered pregnant a whole year, and at last was relieved by a copious watery discharge.*

5. It is proper to mention that *membranes* are sometimes expelled in *dysmenorrhœa*, which have given rise to a suspicion of pregnancy and early abortion. They are accompanied by severe pain, a red discharge, and the substance thrown off somewhat resembles the decidua. But the history of the case will enable us readily to decide. All the appearances of pregnancy are wanting; the discharge recurs at every menstrual period; the membrane is slight in its texture, wants the

viously pregnant, and others not. Dr. Ashwell does not believe that a genuine hard or fibrous tumor ever becomes a pediculated polypus.

The first discharge of blood in several cases, collected by Madame Boivin, is as follows:—

2 at 45 days.	1 at 6 months.
1 " 2 months.	1 " 7 "
4 " 3 "	1 " 8 "
2 " 4 "	1 " 11 "
1 " 5 "	1 " 14 "

The length of time in the last of these cases should be remembered, as it may occur in a widowed female, and unjustly impugn her chastity.

* Foderé, vol. i. p. 743. This author suggests, that if water be contained in the uterus, by raising it on the point of the finger, a fluctuation more or less distinct will be perceived.

Case of Hydrometra in an unimpregnated Uterus.—Dr. Grandidier mentions the case of a female, aged 21, unmarried. Her menstruation had never been regular, but she had complete suppression, after which her abdomen began to enlarge, and in a few weeks reached the size of that of the full term of gestation. As she was proved not to be pregnant by vaginal examination, she was treated for ascites, and after the performance of paracentesis, without the evacuation of fluid, hydrometra was suspected. She was now ordered ten grains of *secale cornutum*, every two hours, until uterine action ensued. After having taken 120 grains, this occurred, and a large quantity of clear water was expelled. She improved materially after this, and menstruation returned; but she had several returns of her disease at intervals, and was not entirely relieved until she underwent a course of mineral waters. (*Neue Zeitschrift für Geburtskunde*, band xxiv. p. 261; Rankin's Abstract, No. ix. p. 158.)

In the Dublin Quarterly Journal, February, 1850, is related a case of *hydrometra*, in a young lady, aged eighteen years. At the end of nine months, paroxysms of pains like labor-pains occurred. A yellowish-colored serous discharge continued for four weeks. Catamenia returned in a few weeks thereafter. (Rankin's Abstract, No. xi. p. 151.)

vascularity of the true decidua, and never contains any of the transparent membranes of the ovum. Many unmarried females are periodically subject to this severe disease.*

6. A collection of air in the womb has sometimes led to mistakes as to the presence of pregnancy. This has been variously styled *physometra*, *tympanitis*, and *emphysema of the womb*. In 1798, a female in the Royal Infirmary at Edinburgh stated that she was in labor. According to custom, a house pupil was sent to attend her, which he did very faithfully for two days and two nights. At the end of that period, he sent for Dr. Hamilton, the professor of midwifery, who examined her, and much to the mortification of both the student and the woman, declared that she must become pregnant before she could be delivered. She was laboring under this disease.

An interesting case is related by Dr. Ray, of Eastport, Maine. It made its first appearance during a second pregnancy seventeen years ago, and from that time to this, the patient has never been free from it—whether impregnated or not. In the latter state, however, no inconvenience is experienced; in the former, there is always severe pain. Sometimes, but not always, the air is discharged with a crepitus, and as often as twice or thrice a week. This, however, varies, and she has never observed it to accumulate so as to produce any perceptible enlargement of the abdomen. The most intense pain occurs after quickening.†

* Cyclopedia Pract. Med. vol. iii., p. 488; Dr. Denman, in Medical Facts and Observations, vol. i. p. 108. He observes that he has “the most undoubted proofs that it may be formed without connubial communications.”

† Boston Med. Magazine, vol. i. p. 233; see on this disease, Burns, p. 82; Denman, p. 148; Gooch, Diseases of Women, p. 242; a case by Mr. Wray, in Lancet, vol. xii. p. 396; Medico-Chir. Review, vol. xix. p. 512; two cases from an Italian journal. One of these imitated pregnancy, in some respects; but at the sixth month it dissipated. Ibid., vol. xxii. p. 418; Review of Madame Boivin; Lee, in Cyclopedia Pract. Med., vol. iv. p. 383.

Tessier, in Medico-Chirurg. Review, vol. lxvi. p. 487; American Journal Med. Sciences, N. S., vol. iv. p. 403; British and Foreign Medical Review, vol. xiii. p. 246; a case by Dr. Ereoliani, of *physometra*, in the puerperal

Cases of pretended pregnancy have occasionally excited considerable attention, from peculiar circumstances attendant on them. Of this nature was the instance of Bianca Capello, the mistress of the Prince of Tuscany, who, in order to gratify his wish of having an heir, feigned herself pregnant, and at the expected period introduced the child of another as her own. And in more modern times, Joanna Southcott, at the age of sixty-five, declared herself pregnant, and was believed by her followers in England; nay, more, she even found medical men who attested to it, (though none, of high character,) although she stated at the same time that she was a virgin. Her death, however, occurred previous to the expected delivery, and on dissection, no traces of pregnancy could be discovered.*

state, Boston Med. and Surgical Journal, vol. xxxiii. p. 98; four cases by Professor Barbour, of Kemper College, one female unmarried.

Dr. Churchill (Diseases of Females, p. 108) mentions, as diagnostic marks of physometra, the absence of foetal motion, the resonance of the tumor, and the presence of pain. The menses are usually suppressed, the abdomen enlarges, and milk is secreted.

There are some diseases to which the uterus is liable, that may occasionally be mistaken for pregnancy. Of these, Dr. C. M. Clarke mentions the *fleshy tubercle*. All, however, are slow in their progress, and are generally unaccompanied with affections of the stomach and breasts. They arrive at their height long after pregnancy should have been completed. The very fact of enlargement continuing more than five months is, according to Gooch, a strong argument against its presence.

Let us also not forget, that some morbid conditions of the uterus are compatible with pregnancy. Thus carcinoma, particularly of the cervix uteri, and even in the ulcerative stage, has occurred to Drs. Clarke, Kennedy, and others; and so also cauliflower excrescence of the uterus. Kennedy, p. 144; see also the cases related by Dr. Robert Lee, in London Medical Gazette, vol. xxviii p. 898, and vol. xxxi. p. 721.

* Edinburgh Review, No. 48, art. 11. In the stormy period that preceded the abdication of James II., it seems to have been a favorite opinion among the Protestants, that the Pretender (as he is now styled in history) was a supposititious child. The proof in favor of this may be found in Burnet's History of his own Times, London, 1758, vol. i. pp. 473-524; and the whole testimony, in favor and against the opinion, is collected in Howard's State Trials, vol. xii. p. 123; see also History of England, vol. viii. pp. 146, 154, in Lardner's Cabinet Cyclopaedia.

The laws for the punishment of concealed pregnancy will be introduced with most propriety in the chapter on infanticide.

To prevent repetition, I shall also delay the consideration of the appearances found on dissection, until I come to consider the subject of delivery.

III. *Of Superfœtation.*

By superfœtation is understood the conception of a second embryo during the gestation of the first, or that a woman who has advanced to any period of one pregnancy, is capable of conceiving another child.

This doctrine was very current among the ancient physicians,* and still has adherents, although the majority of the medical profession at the present day are skeptics with respect to it. Its bearing in legal medicine is on the question of legitimacy, as I shall hereafter show.

It will conduce to a better understanding of the subject, if the cases which are deemed instances of superfœtation be first stated; and afterwards the objections to them, and the mode in which the opponents of this doctrine explain their peculiarities.

1. The following is taken from the *Consilia* of Zacchias: J. N. Sobrejus lost his life in a quarrel, leaving his wife pregnant. Eight months after his death she was delivered of a deformed child, which died in the birth. Her abdomen remained large, and it was suspected that a second infant was contained in it, but all efforts to procure its delivery proved fruitless. One month and a day thereafter, the widow was again taken in labor, and brought forth a perfect living child. The relations of the husband contested its legitimacy, on the ground that it was the fruit of a superfœtation, and Zacchias was consulted on the subject. He agreed that the two infants could not have been the product of one conception, since the

* So common was the belief in it, that Brassavolus observes that he has seen superfœtation epidemic!

interval between their birth was so great; but advanced it as his opinion, that the *first* was the product of a superfœtation, and conceived a month after the other. This he strengthened by the fact that the husband died suddenly, while in a state of perfect health. His opinion preserved the character of the mother, and also gave her those legal rights to which her situation entitled her.*

Dr. Denman, in his work on Midwifery, quotes a letter addressed to the lady of Sir Walter Farquahar, by the patient herself, which contains a case belonging to the subject before us. The female went to the ninth month of pregnancy; but between the fifth and sixth she met with a great fright, which affected her severely and diminished her size. On the 11th of February she was delivered of a healthy child, but continued in pain; and it was not until the morning of the 25th that she was relieved. "On that day there was born the head and parts of a child that had just the appearance of a miscarriage of four months."†

* Zacchias, *Consilia*, No. 66. Foderé observes, that he is assured that a female in Turin, in 1797, was successively delivered of three children, at an interval of fifteen days between each. (Foderé, vol. i. p. 484.)

† Cases resembling the above are mentioned in most works on midwifery, and in many of the periodical journals. I will refer to some that I have noted:—

Philosophical Transactions, vol. lxi. p. 453. (Case by Mr. Warner.) *Medico-Chirurgical Transactions*, vol. ix. p. 194, case by Mr. Chapman, where a blighted fœtus and placenta were expelled at seven months, and a living child remained to the full period of utero-gestation. *Eclectic Repertory*, vol. x. p. 531, Dr. Mease, on cases of blighted fœtus. *London Medical and Physical Journal*, vol. xxii. p. 47, and vol. xxiv. p. 232. In one of these, (case by Mr. Farrell,) a healthy child was first expelled, and in about four hours afterwards, a dead fœtus of the size of five months' conception. In the other, (case by Mr. Rolfe,) the dead fœtus, apparently of six months, was first delivered, and the full-grown child shortly after. Three cases are respectively related by Messrs. Newnham, Hayes, and Powell, in the *Transactions of the Associated Apothecaries of England and Wales*. Each of these had separate placentas; one of the blighted ova was putrid and the other not. (*New England Journal*, vol. xiii. p. 241,) by Baron Percy, in *London Medical Repository*, vol. xx. p. 110. By F. W. Norton, in *New York Medical Repository*, vol. xxiii. p. 110. By Dr. John Clarke, in *London Medical*

Additional references will be found below. It is necessary to add in this place that the blighted ovum is sometimes retained for a length of time. This should not be forgotten in medico-legal cases, else it may by possibility happen that an unjust suspicion will fall on the innocent. Thus, in a case that occurred to Dr. Montgomery, an ovum at two months (as was evident from its size) was not expelled until three months thereafter, and in one cited by him from Dr. Ingleby, another of three months was not expelled until the ninth month.

2. A case mentioned by Buffon has been often quoted by the opponents and advocates of superfœtation. "A female at Charleston, in South Carolina, was delivered, in 1714, of twins, within a very short time of each other. One was found to be black and the other white. This variety of color led to an investigation; and the female confessed that on a particular day, immediately after her husband had left his bed, a negro entered her room, and by threatening to murder her if she did not consent, had connection with her."*

It has been insinuated against the credibility of this case, that one of the offspring was white. Instances can, however, be adduced, where this objection does not apply. Dr. Mose-

and Physical Journal, vol. xvi. p. 219. By Dr. Fithian, in Chapman's Journal, N. S., vol. ii. p. 367. By Dr. O. H. Taylor, in North American Medical and Surgical Journal, vol. iv. p. 81. By Dr. Fahrenhorst, of Lithuania, New York Medical and Physical Journal, vol. vii. p. 393. By Dr. Colombe, American Journal of Medical Sciences, vol. v. p. 483. Mr. Leeson and Mr. Hunter, Lancet, N. S., vol. xix. pp. 133-256. In neither of these was the shriveled fetus in any way putrefied. By Dr. Montgomery, Signs of Pregnancy, p. 205. By Dr. Jackson, Amer. Journal Med. Sciences, vol. xxii. p. 207. By Dr. Isaac Porter, *ibid.*, vol. xxiv. p. 256; and vol. xxvi. p. 307. By Dr. Conger, Boston Med. and Surg. Journal, vol. xxix. p. 216. By Dr. Siebold, London Med. Gazette, vol. xxvi. p. 45. By Mr. Stone, Lancet, N. S., vol. xxvi. p. 842. By Dr. Streeter, *ibid.*, vol. xxix. p. 148; *ibid.*, January 14, 1843, by Mr. Vale. By M. Menard, London and Edin. Monthly Journal, vol. i. p. 68. By Dr. Loomis, Buffalo Med. and Surg. Journal, vol. i. p. 18. By Dr. Jamieson, Dublin Journal of Med. Science, September, 1841. North-western Med. and Surg. Journal. vol. iii. p. 314, case by Dr. Brady.

* Foderé, vol. i. p. 482.

ley mentions the following as occurring within his time at Shortwood estate, in the Island of Jamaica. "A negro woman brought forth two children at a birth, both of a size, *one of which was a negro and the other a mulatto*. On being interrogated upon the occasion of their dissimilitude, she said she perfectly well knew the cause of it, which was, that a white man belonging to the estate came to her hut one morning before she was up, and she suffered his embraces almost instantly after her black husband had quitted her."*

* Moseley on Tropical Diseases, etc., p. 111. For additional cases, see Quarterly Journal of Foreign Medicine and Surgery, vol. iii. p. 350, case by M. De Bouillon, from the Bulletin de la Faculté et de la Société de Médecine, 1821. A negress delivered of twins, as in Dr. Moseley's case, and who made a similar confession.

Case by Dr. Dewees—a white woman, near Philadelphia; twins; one white and one black, (Coxe's Medical Museum, vol. i. p. 174.) Case by Dr. Trotti—a negress in South Carolina, in 1815; three children; two white and one black, (N. Amer. Med. and Surg. Journ., vol. i. p. 466.) Case by Dr. Guerarde—a negress in South Carolina; twins; a black and a mulatto, (Chapman's Journal, N. S., vol. v. p. 412.) Case by Dr. Delmas, of Rouen—a woman in a public hospital of that city; twins; one white and the other tawny, (Dictionnaire des Sciences Medicales, vol. iv. p. 181; *Cas rares*.) Dr. Blundell, in his Lectures, refers to a case of this description, by Mr. Blackaller, of Weybridge, (Lancet, N. S., vol. iii. p. 262.) A case at the Lying-in Hospital, Berlin, (January 25, 1832,) of twins; one white and the other half-caste. Connection with a negro was proved. From Hecker's Annals, (American Journal of Medical Sciences, vol. xiv. p. 220.) A case in New England, of twins; one black and the other mulatto. The mother (black) confessed cohabitation with a white man. (Related by Dr. Holcombe, of Massachusetts.) Boston Med. and Surg. Journal, vol. xiii. p. 64. Case by Dr. Hille, of Surinam, where it occurred. A negress, having connection with a negro, and then with a European during the same night, bore twins; one a pure negress and the other a mulatto. Dr. Hille adds that both were living in 1841, eight years old, and that the mother, who had died some time previous, had, on dissection, been found to have the genital organs naturally formed. Quoted from Casper, by Mr. Paget, in British and Foreign Med. Review, vol. xvii. p. 272. Case by Dr. Cunningham, of Virginia. A negress had twins, one *white* and the other *black*. Dr. Cunningham saw them a few weeks after birth. (Med. Examiner, vol. viii. p. 647.)

Dr. Carter, of Virginia, reports the case of "the negro woman Winny, twenty-three years old, of good constitution, and as black as the ace of spades. She has borne three children previously to this labor. She says, that in April, 1848, she had connection with a white man, and on the fol-

"One of the author's pupils," says Prof. Dunglison, "Mr. N. J. Huston, of Virginia, has communicated the particulars of the case of a female who was delivered, in March, 1827, of a negro child and a mulatto on the same night. Where negro slavery exists, such cases are sufficiently numerous."*

3. Dr. Maton, of London, published the following as a case of superfoetation: Mrs. T., an Italian lady, but married to an Englishman who was attached to the commissariat of the British army in Sicily, was delivered, on the 12th of November, 1807, of a male child, which had every appearance of health. It was brought forth under circumstances very distressing to the parents, being dropped in a bundle of straw at midnight, in an uninhabited room; and it survived nine days only. On the 2d of February, 1808, (not quite three calendar months from the preceding *accouchement*,) Mrs. T. was delivered of another male infant, completely formed, and apparently in good health. He was sent away to be nursed; but the nurse's milk being deficient, he was removed soon after to another foster-mother. When about three months old, however, he fell a victim to the measles, and died. From November, 1807, to February, 1808, Mrs. T. had not left

lowing day, with a black one. About a week or ten days elapsed, when the catamenia failed to appear. In February, 1849, about the middle of the month, she was delivered of twins, the dark-colored child being first delivered, and afterwards the mulatto. The children are robust; one of them is a mulatto, and the other as dark as negro children generally are. The woman is certain they were begotten by different fathers, and this is the conclusion to which all have come who have seen the children." (Philadelphia Medical Examiner, N. S., vol. v. p. 523.)

See a comprehensive memoir upon this subject, by Dr. Alexander Henry, in the London Journal of Medicine, December, 1849.

See Braithwaite's Retrospect, No. 23, (July, 1851,) p. 257, for a case of birth of twins, at eight days' interval between first and second labor.

The following is, I believe, the most remarkable case yet recorded: "It was communicated to me by the Sargenté Mor of the St. Jose gold district, (Brazil.) A creole woman with whom he was acquainted in the neighborhood, had three children at a birth, of three different colors, white, brown, and black, with all the features of the respective classes." (Rev. Dr. Walsh's Notices of Brazil, vol. ii. p. 90.)

* Dunglison's Physiology, vol. ii. p. 324.

Palermo, except on short excursions in her own carriage; and her husband had been constantly with her since the year 1805. He communicated this narrative to Dr. Maton, with a certificate pledging himself to its truth.*

The last instance I shall mention in detail, is one communicated to Foderé by Dr. Desgranges, of Lyons, and it is certainly very extraordinary.

The wife of Raymond Villard, of Lyons, married at the age of twenty-two, and became pregnant five years thereafter, but had an abortion at the seventh month, on the 20th of May, 1779. She conceived again within a month, and on the 20th of January, 1780, eight months after her delivery, and seven months from her second conception, she brought forth a living child. This delivery was not, however, accompanied with the usual symptoms; no milk appeared, the lochia were wanting, and the abdomen did not diminish in size. It was accordingly found necessary to procure a nurse for the child.

Two surgeons visited the female, and were at a loss with respect to her situation. They called Dr. Desgranges in consultation, who declared that she had a second child in the womb. Although this was strongly doubted, yet three weeks after her delivery, she felt the motion of the fœtus; and on the 6th of July, 1780, (five months and sixteen days after the first birth,) she was again delivered of another living daughter. The milk now appeared, and she was enabled to nurse her offspring.

It is not possible, adds Dr. Desgranges, that this second child could have been conceived after the delivery of the first.

* Transactions of the London College of Physicians, vol. iv. p. 161. Dr. Granville, in a criticism on this case in the Philosophical Transactions for 1818, supposed that they were twins, whose ova were distinct and separate; and that one was born at the sixth, and the other at the ninth month of pregnancy. Dr. Paris was in consequence led to make further inquiries of Dr. Maton, and he found that *both children were born perfect*. The labor, though quick, was not sudden; since the accoucheur was present. All the distressing circumstances noticed, and on which Dr. Granville appears to rely, referred merely to the inability of obtaining proper accommodations. (Paris' Medical Jurisprudence, vol. i. p. 264.)

“Car le mari ne lui avait renouvelé ses caresses que vingt jours après, ce qui n’aurait donné au second enfant que quatre mois vingt-sept jours.”

The narrative of this case was accompanied with a legal attestation of it under the oath of the mother; and on the 19th of January, 1782, both children were still living.*

These instances will give a full idea of what is understood by superfoetation in the human species. The advocates for this doctrine consider them as conclusive testimony, while the opponents explain their peculiarities in various ways, and also endeavor to prove that this kind of conception is impossible.

In the first place, it is urged that shortly after conception the os tincae, as well as the internal apertures of the Fallopian tubes, are closed by the deposition of a thick, tenacious

* Foderé, vol. i. pp. 484, 485, 486. Cases resembling these, but not so remarkable, are related: one by Dr. Farquhar—this occurred in the Island of Jamaica, in 1805; interval, four weeks. (Coxe’s Medical Museum, vol. ii. p. 316.) One by Dr. Levrat—reported to the Medical Society of Lyons, in 1827; interval of four months. *Annales de la Médecine Physiol.*, April, 1827. *American Journal of Medical Sciences*, vol. i. p. 193, reproduced with other cases, in *Bulletin de l’Acad. Royale*, vol. ix. p. 8. Three in the *Dictionnaire des Sciences Medicales*, art. *Superfoetation*. One by Madame Boivin—an interval of two months. The first was born March 15, 1810, and weighed four pounds; the second on the twelfth of May—weighed three pounds—weak, and breathing with difficulty. The female confessed that she had not lived with her husband for a long time; and that the two children were the result of only three connections with another man, on the fifteenth and twentieth of July, and the sixteenth of September. See Pendleton on Superfoetation and Bipartite Uteri, in *American Journal of Medical Sciences*, vol. i. p. 307. A case of several successive deliveries at various periods, at intervals of two months, and another of one month, by Prof. Wendt, of Breslau. This is, however, a very doubtful case. From *Journal des Progres*, in *Monthly Journal of Foreign Medicine*, vol. iii. p. 90. A case by Dr. Moebus, of Dieburg. A female, the mother of four children, gave birth to a child of full size, on the sixteenth of October, 1833; and on the eighteenth of November, to another equally of full size. *American Journal Medical Sciences*, vol. xx. p. 481, from a German journal. I may add to these, a case of twins, quoted from Wildberg’s *Jahrbuch*, in which the second child was born four days after the first. Both the man and woman asserted that they had cohabited but once. *Medico-Chirurg. Review*, vol. xxix. p. 495.

mucus. The membrana decidua is also formed early, and lines the uterus, and thus co-operates with mucus in obliterating the openings into its cavity.*

When the gravid uterus enlarges, the Fallopian tubes lie parallel to its sides, instead of running in a transverse direction to the ovaria, as in the unimpregnated state. If then an embryo be generated, the tubes could not embrace the ovum, and it would remain in the ovarium, or fall into the abdomen, and thus constitute an extra-uterine conception.

But again, it is said that even if we allow the practicability of the new embryo reaching the uterus, its arrival would be destructive to the foetus already present. The functions which have already been performed for the first conception have now to be repeated, and an additional decidua and placenta are to be formed.

These are briefly the arguments urged against the possibility of superfœtation. An appeal, however, is made to cases where, as we have already stated, two or more children of different sizes, and *apparently of different ages*, are born nearly at the same time, or at a longer interval.†

* The advocates of superfœtation deny that this mucus closes the os tincæ completely; and they conceive that the absorption of new fecundating matter through it is possible. (Capuron, p. 110; Foderé, vol. i. p. 483.)

Dr. Cummin denies that the uterus is immediately closed, and adduces in favor of this, the fact that some menstruate during the first month—nor does he believe that the decidua *always* closes the cervix uteri, as in Dr. Lee's case. At all events, in that, the Fallopian tube was open—the decidua did not close its orifice. (London Med. Gazette, vol. xix. p. 597.)

† An engraving illustrative of this occurrence is given in Cruveilhier's Pathological Anatomy, No. 6. One foetus is about six months advanced—the term indeed of the pregnancy—while the other has about the size of one of three months. A large portion of the placenta was diseased, and to this the cord of the smaller is attached, while that of the other proceeds from the healthy portion.

Mr. Ingleby mentions cases precisely of the description suggested in the text. "A few weeks ago," says he, "on examining a mature placenta, the expulsion of which was attended with severe hemorrhage, a foetus of four or five months, flattened, but not putrid, was found within the membranes, closely adherent to the uterine surface of the mass, and a full-sized living child, in connection with this placenta, had just been expelled." He has

It will be observed, that in one class of instances, the lesser child is represented as dead and decayed, and its size is much smaller than the accompanying birth. Now in these, it is suggested, that twins have been conceived, and that the embarrassed situation of one child in the uterus may have prevented its development, checked its nutrition, and thus caused its death.* The other, on the contrary, lives and grows,

also seen a large mole or a diseased ovum expelled, while a fœtus inclosed in its proper membranes was still retained and not expelled until weeks after.

* *Birth of Twins, one alive, and at full term, the other Blighted.*—In our preceding number, (p. 240,) we noticed a case of this character; some particulars of a similar case, which occurred in the practice of Mr. Hughes, was related to the Westminster Medical Society, (October 23, 1841,) by Dr. Streeter. One of the children was born alive at the full term of pregnancy, while the other, which had perished at about the third month, had been retained in the uterus nearly six months after its death, without having undergone much decomposition. The blighted fœtus had been squeezed quite flat, probably during the labor, and was expelled a few minutes before the placenta. The parts were on the table; the blighted fœtus might be seen still attached to that portion of the amnion which had covered the fœtal surface of the placenta. The membranes were imperfect and considerably torn, but enough remained to show that the fœtuses had been inclosed in one common decidua and one common chorion, and that each had its own amnion. The placenta had been injected from the umbilical vein of the cord of the full-grown child; and one vein, as large as a goosequill, could be seen arising near the insertion of the funis in the placenta distinctly anastomosing with the umbilical vein of the funis of the smaller fœtus; a circumstance which probably accounted for no part of the placenta having a withered appearance. Mr. Streeter considered that the presence of a common chorion proved, beyond the possibility of doubt, that it was a case of twin conception, and not one of superfœtation. Many cases of twins, where one fœtus was blighted early and retained till the other was nearly or completely developed, had been recorded: for example, three by Dr. R. Collins, at page 317 of his "Practical Midwifery;" one figured by Cruveilhier, in his "Anatomie Pathologique;" one was related in the essay which Mr. Streeter read before the society two sessions ago. "The most remarkable instance, however, with which he was acquainted, was one in the possession of Dr. Robert Lee, and which he had himself seen, where triplets had been conceived, but two of the fœtuses had perished about the third or fourth month, and had been retained until the full term of gestation, when they were expelled, and remained attached to the placenta of the living child." (Lancet, October 30, 1841.)

Extraordinary Case of Twins.—Dr. Jamieson, of Dublin, relates the fol-

presses on the dead one, which becomes flattened, or wholly or partly putrefied; and in this condition both may be expelled at the same time, or one may be detained for some time after the other.*

It is evident that this explanation puts aside the idea of superfœtation.†

The second class of cases, where a twin birth of various colors takes place, have been universally considered as examples of contemporaneous conception.

The experiments of Bischoff, on animals, show that the ova are in some detached before copulation, while in others they

lowing cases in the Dublin Journal of Medical Science for September, 1841. On the third of April, 1841, he was called to visit a lady, thirty years of age, in consequence of severe pain in the abdomen, recurring at uncertain intervals, and lasting generally about five minutes at a time.

The author discovered a firm, hard tumor, reaching as high as the umbilicus, which softened on the subsidence of pain, and appeared to be the gravid uterus. On applying the stethoscope, Dr. Jamieson thought he heard a placental murmur in the right iliac fossa; but the lady said it was impossible she could be with child, as she had been confined so recently, (seven weeks before,) and was at present nursing. As, however, Dr. Jamieson was convinced that the tumor was the uterus, and that it was acting to get rid of something, he ordered a dose of oil, and retired to another room, in order to explain to the husband that he believed there was some foreign body in the uterus of his wife.

The author was hurriedly summoned, while engaged in this explanation, to the apartment of the lady; and on examining per vaginam, found the head of a small child presenting, with the membranes entire, which, on the occurrence of another pain, was expelled together with the placenta. The child was dead, and seemed to be about the sixth month of gestation; and though shriveled and dark, was not at all putrid or decomposed. It was between eight and nine inches long. The mother was, of course, greatly surprised. She had been confined of the other twin on the thirteenth of February. Consequently the dead fetus must have remained in the womb for *forty-nine weeks*—three weeks of a year. (London Med. Gaz., 30, 989.)

* In noticing the objections to this doctrine, I have made a free use of Professor Chapman's able essay on it, in the Eclectic Repository, vol. i. p. 369.

† G. St. Hilaire advanced the idea, some years since, that in every case of acephalous monsters, there is a twin born perfect, and with a common placenta. He considers the acephalous as the imperfect twin of another, whose development has been completed. (Lancet, vol. x. p. 748.)

are not until long after the act, (twenty-four hours, for example;) again, he found the independence of the passages of the ova and the semen still more marked; for example, several days after copulation ova were found fecundated in one tube, but in the others spermatozoa alone, none of the Graafian vessels in the corresponding ovarium being either enlarged or fully developed.

These facts are supposed to bear upon, and to explain the cases under this division. They even, as now stated, cannot aid the doctrine of superfœtation. But if we thus account for the great mass of instances that were formerly referred to it, and grant, which indeed can hardly be denied, that superfœtation is impossible in a single impregnated uterus, there yet remain some cases, like those of Drs. Maton and Desgranges, which require explanation. It has been attempted to do this, by supposing that a *double uterus* was present. This is far from being as rare as was at one time supposed. "The human uterus," says Dr. William Hunter, "in the impregnated state, commonly has one triangular cavity. In many instances it is found subdivided at its upper part into two lateral cavities, so as to resemble the two horns of a uterus in a quadruped. Several specimens of such uteri are preserved in my collection."* Not only has the uterus been found double, but occasionally the vagina also. In the Museum at Heidelberg, Dr. Tiedemann informs us, is the uterus of a female who died nineteen days after delivery. It is divided; the left is in the state to be expected after the removal of the foetus, while the uterus on the right side is characterized by the absence of all appearances of impregnation. Two vaginæ are also present.†

* Hunter's Anatomy of the Human Gravid Uterus; London, 1694, p. 6. I am indebted for this reference to my colleague, Professor Willoughby.

† Quarterly Journal Foreign Med. and Surg., vol. v. p. 438. All the cases related by authors of double uteri, have been collected by Dr. Cassan, in his "Recherches sur les cas d'uterus double et de superfœtation," 1826. He enumerates no less than forty-one, among which are those of Haller, Purcell, Canestrini, Eisenmann, Poldè, Dupuytren, West, Olivier, and one examined by himself, Dumeril, and Madame Boivin, in which both uterus and vagina were double. See also Martin on a variety of the Human

This female was seen by two physicians during her labor. One declared that the neck was in a natural state, while the other

Uterus, (from the *Revue Medicale* of 1826,) for a list of cases. (*Lancet*, vol. x. p. 780.)

The instances that have been recorded since the publication of Cassan, are one by Dr. Geiss, of Traffurth, near Erfurt. The labor-pains were confined to the right side. On that the uterus was as high as the thorax; on the left it did not extend above the navel, and inclined forward and laterally. The operation of turning was performed, and a healthy female infant born; the right side subsided; the left continued prominent. In one hour labor-pains returned, when Dr. G. found membranes protruding through an opening in the left side, which extended upward into a cavity. A second child presented, and was safely delivered by turning. The right placenta came away first, and the right womb contracted; then the left placenta, but its womb contracted slowly, and she lost a good deal of blood. Dr. G. satisfied himself by examination, that this was a case of double uterus. Two years afterwards, she was again delivered of a single child. From *Rust's Magazine*. (Edin. Med. and Surg. Journal, vol. xxix. p. 254.)

Case by Dr. Duges. From *Journal des Progres*, in *American Journal of Medical Sciences*, vol. iv. p. 447.

Case of double uterus and vagina at the Hôtel-Dieu, in 1827. The uterus was unimpregnated. The female died of hæmatemesis. (*New York Medical and Physical Journal*, vol. ix. p. 191.)

A case from Meckel, quoted by Carus, *Gynæcology*. (*American Journal of Med. Sciences*, vol. vi. p. 432.)

Dr. Moreau recently exhibited to the French Academy of Medicine (January 15, 1833) a bilobed uterus divided into two equal lateral halves, each provided with a tube and an ovary; each separated from the other by a double partition, and each having distinct necks and mouths into a single vagina. The mother died after delivery; the fœtus was a male, and had been developed in the left cavity. (*Medico-Chir. Review*, vol. xxiii. p. 234.)

Mr. Adams, a student in Guy's Hospital, relates a case of double uterus found in a body brought in for dissection. The subject was unimpregnated. The superior two-thirds of the uterus were divided by a septum into two equal parts; the neck was natural, with an opening common to both canals. Length of the septum, $1\frac{3}{4}$ inches; whole length of the uterus, $3\frac{1}{2}$. (*London Med. Gazette*, vol. xiii. p. 898.)

Le Roi's case, from the *Journal des Connoissances Medicales* for February, 1335. This female had menstruated for two years, and while the menses were flowing she was seized with intense pain, and a tumor was discovered in the cavity of the pelvis. She died shortly of peritonitis. On dissection, the uterus was found bilobed; the left lobe communicated with the vagina, and the right had no external communication. In its cavity the menstrual fluid had accumulated, and

found it dilated, and said that the head of the child was engaged; a second examination convinced both that the neck was double, and the investigation after death verified it.*

But although this variety in the organization of the uterus may explain several of these cases, and in particular that of Desgranges, as is done by Velpeau and Cassan, yet there are

thus formed the tumor. (*American Journal of Med. Sciences*, vol. xvii. p. 525.)

Case by Dr. Albers, of Bonn. The bilobed uterus in this case was extremely small, and hardly connected with the vagina. (*British and Foreign Med. Review*, vol. iii. p. 221.)

Cases from a memoir of Mr. Louis, read before the Royal Academy of Surgery, in 1790. This memoir, it is stated, has never been published. (*Medico-Chirurgical Review*, vol. xxx. p. 223.)

Case by Scheider, of a woman who, six weeks after marriage, bore a four months' child, and forty weeks after marriage, mature twins. On examination, the uterus and vagina were both found double, and each vagina had a separate orifice. (*London Med. Gazette*, vol. xx. p. 408.) From Muller's Archives for 1836.

Davis' *Obstetric Medicine*, p. 514, etc., contains an account of the cases collected by Voigtel.

Cases are also figured by Cruveilhier, in his *Pathological Anatomy*, Nos. 4 and 13; and one is mentioned by Mr. Crosse, of a double vagina and uterus occurring to Mr. Norgate, in the Norfolk and Norwich Hospital. (*Transactions Med. Provincial Association*, vol. v. p. 89.)

Case by Dumas, of a bicorned uterus, found after death. This female had been pregnant six times. She aborted twice at the fifth and sixth month, and at another time was delivered of twins.

Case by Dr. Fricke, of Hamburg, of a girl with a double vagina, double cervix uteri, and probably a double uterus. She was a prostitute, and the right vagina only was used in sexual intercourse. The left was narrower, and the os uteri of that side appeared smaller. It was impossible, as she had not menstruated while in the hospital, to ascertain whether the secretion flowed from both, or only one os uteri. (*British and Foreign Med. Review*, vol. xiii. p. 228.)

Case by Berard, one of a female with a double uterus, in which was found a uterine polypus; and another, in which both uterus and vagina were double. This last person had borne seventeen children. (*Bulletin de l'Acad. Roy. de Médecine*, vol. viii. p. 737.)

Case by M. Billengren, quoted in *Edinburgh Med. and Surg. Journal*, vol. lix. p. 231.

A case at Vienna, *Lancet*, November 11, 1840, p. 198.

* Velpeau's *Midwifery*, p. 79; Cassan, p. 28. West's case is similar.

intrinsic difficulties attending the solution. It has been inquired whether menstruation goes on in the unimpregnated half? If it does, it will account, as is supposed, for the occasional presence of that discharge, or something much resembling it, during pregnancy. In Canestrini's case, however, it is distinctly stated that it had not taken place during that process.* The others give us no information on the subject.

A more formidable objection, founded on anatomical observation, has been recently presented by Dr. Robert Lee. He examined, in 1831, a female who died eight days after parturition. She had had several children. The uterus was double from the fundus to the cervix, and thus divided into lateral halves. The foetus had been in the right half, which had one ovarium and one Fallopian tube connected with it. The left was furnished with similar appendages. Both ovaria were enlarged, but the right most so, and it contained a corpus luteum; the left had none. The internal surface of the left *was coated everywhere with a deciduous membrane*; and at its opening into the cervix it formed a shut sac. Now such a disposition, remarks Dr. Lee, if it always exists, which he deems probable, must render superfœtation impossible.†

We must also recollect, that in remarkable cases of children born several months from each other, no examination‡ has yet

* Cassan, p. 39. The case is related in detail in *Med. Facts and Observations*, vol. iii. p. 171.

† *Med. Chirurg. Transactions*, vol. xvii. p. 473.

‡ There is at least one case of supposed superfœtation, in which dissection was had, and no double uterus, nor indeed anything different from the most natural state, could be discovered. [See also the case by Dr. Hille, *ante*, p. 317.] It is that of Maria Begaud Vivier, who, on the 30th of April, 1748, was delivered of a living child, and on the 16th of September succeeding, another of full size and maturity was born. The mother, who had also a child in 1752, died of an acute disease in 1755, and was examined by Professor Eisenmann, who found the parts in the condition I have mentioned. The only obscurity in this instance is the remark of the professor, that the first child was neither *so strong nor so large* as the second; but certainly we should suppose (with Devergie) that if premature, he would have used more definite language. (Devergie, vol. i. p. 469.)

It is, however, stated in the *Bulletin de l'Acad. Royale de Médecine*, vol. ix. p. 15. Eisenmann remarks that the first infant survived only two and a half months, and was neither so large nor so lusty as the second born.

been made to prove that *there* double uteri existed. "They are ascribed," says Richerand, "to septa dividing the uterus into two cavities, merely because such an arrangement would explain to a certain degree how two conceptions might take place at some interval from each other; for it has never been ascertained by actual dissection that any woman, in whom such superfœtation took place, had a double uterus."*

Should the doctrine of superfœtation ever be pleaded in medico-legal cases, we must be guided by the laws of legitimacy, both as to premature and to protracted births. The latest born should fall within the legal term, or be excluded from the privileges attendant on it; and this is more particularly necessary, from the obscurity that invests the subject.

* Richerand's Physiology, p. 357. Dumas, an attaché of the Faculty of Medicine at Montpellier, has discovered a case related by Dionis, which bears on this subject. A female, aged twenty, and pregnant about two months, doubted the existence of this, in consequence of the menses continuing as usual. The symptoms, however, became more and more manifest; and at four months and a half she felt the motions of the fœtus; and at the fifth month the menses ceased, and were succeeded by a slight serous discharge. While thus advancing, she was suddenly seized with violent pains, as of a person in labor, which yielded to no remedy, and she died at the end of twelve days.

On dissection, a fœtus was found in the abdominal cavity, and the uterus, sufficiently large to have contained it, was seen ruptured throughout a large portion of its surface. Toward the right was another lobe, connected with the ruptured portion by a single neck, but smaller, and in the interior of this a mole was discovered.

Here was a case of bilobed uterus, in one of whose lobes pregnancy was going on, while menstruation had during the same period occurred in the other. (Encyclographie des Sciences Medicales, 4th series, vol. viii. p. 216.) He infers from this and similar instances, that pregnancy may be advanced in one lobe, while it is only partially advanced in the other. He also endeavors to explain the very rare occurrence of such cases by supposing that the development of the two cavities must lead to frequent abortions. (Amer. Journal Med. Sciences, N. S., vol. iv. p. 447.) The only cases in which Cassan considers superfœtation possible, are—1. Where there is a perfect double uterus. 2. Where there is a pre-existing extra-uterine pregnancy. 3. When there is a new conception before the fecundating germ has occupied the cavity of the uterus. The experiments of Haller, Hunter, and Haighton, and more recently of Home, John Burns, and Magendie, prove that the ovum sometimes does not descend into the womb until eight, fifteen, or even twenty days after fecundation.

IV. *Of some medico-legal questions connected with this subject.*

Two questions relating to pregnancy have been suggested, which deserve some notice.

1. *Can a woman become pregnant, and be ignorant of it until the time of labor?* I cannot better preface an examination of this, than by observing, that with women certain appearances are often referred to the cause from which they wish them to originate. Thus, married females attribute their indisposition and ailments to the presence of pregnancy, while those who, from being unmarried, and enjoying guilty pleasure, dislike the idea, charge any alteration that may occur to disease. Of this nature is the case related by Mauriceau, where a female, who had been secretly married, took every precaution to avoid pregnancy, and not only deceived herself, but also an old physician, who prescribed for her, as having a scirrhus womb, until the night before her delivery. In another instance, a female, aged thirty-five, who had made the most solemn vows of chastity, deceived many physicians, who treated her for dropsy of the womb.* Foderé himself relates an instance which happened to an acquaintance, who was sent for to a nun laboring under a violent colic, and who continued to deny her being with child, until the cries of the infant silenced her.†

We may smile at these narratives, but the subject assumes a grave importance when the question is asked judicially. A case in which it was made a matter of investigation is related in the *Causes Célèbres*, and an abstract of it may prove useful.

In 1770, a female, aged twenty-five, and named Louisa Bunel, residing in the bishopric of Avranches, in France, was seduced and became pregnant. It was in the month of August, when field labor is the most severe, that she experienced a cessation of the menses. She attributed this to the fatigue she had undergone; and, feigning ignorance of her situation,

* Mauriceau, vol. ii. pp. 111, 205.

† Foderé, vol. i. p. 421.

declared herself dropsical. She applied to several monks for medical aid, and took diuretics, but without effect. Finally, at the sixth month she married, but not her seducer, and after that repeatedly took an infusion of savin and wine. At the end of three months, being alone, she was delivered of a child, which she afterwards declared was born dead, and which she covered with linen, carried to a neighboring field, and put under some leaves. Eight days after, a dog discovered the body, and brought some rags from it to the house of a neighbor. Judicial search was now made. Louisa was discovered to be the mother, and was condemned to death for committing infanticide. Her plea was—1. That she was perfectly ignorant of her pregnancy, and that the remedies she had taken were solely with a view to remove her supposed dropsy. 2. That the child was born dead. 3. That at the time of delivery, she was so extremely weak for four hours, that she could not call for assistance, and on reviving, preferred burying her shame, since it was useless to expose herself by showing a dead child. An appeal was made to the superior court at Bayeux, who, after taking the opinions of sixteen physicians at Paris, on the case, reversed the sentence on the 11th of November, 1772, and discharged the prisoner.*

The case, in the opinion of these physicians, turned on the following points: 1. Could the accused be ignorant of her pregnancy and confound it with another complaint? 2. Could she innocently make use of the remedies that she confessed she had taken? 3. Is it certain that the child was born dead; and if so, what occasioned its death? The two first only relate to our subject, as the third belongs to infanticide. Our medical judges answered both in the affirmative, on the ground of the uncertainty of the signs of pregnancy, and the ease with which it might be confounded with other diseases. They adduced in favor of this, the authority of Astruc, Zacchias, Senac, and Hëbenstreit. This last observes that a female might be impregnated when intoxicated, and might go to the

* Foderé, vol. i. p. 491, quoted from the *Causes Célèbres*.

full time without knowing it; and on being seized with pain, might mistake it for colic or painful menstruation.*

Foderé, in remarking on this case, very justly observes, that although instances have occasionally occurred where married women have mistaken their situation, yet the sex generally ridicule the idea of this pretended ignorance. And in those which usually will come before a court of justice, the reply to such a plea should be—*Have you not exposed yourself to become pregnant; and on what account, then, were you so confident of the usual consequences not following it?*†

The following are laid down by our author, and I think correctly, as the only cases in which ignorance is possible:—

* Hebenstreit, p. 386. There appears to me to be an intentional misrepresentation of our author in this instance. He evidently only refers to an extreme case. On the main question, he observes: “His tamen non obstantibus, et quamvis vera, nec ex catameniorum defectu, nec ex tumore abdominis, aut lactis in mammis presentia, de graviditate convictio nasci possit; impossibile tamen est, gravidam, quæ vegetum, fortemve embryonem. et talem qui ad usque partus legitimum terminum sine morbo pervenit, matris tulit, motus istos magnos, qui prope finem sanæ et commodæ graviditatis sunt, non percepisse.” (Page 385.)

† A reviewer in the Edinburgh Medical and Surgical Journal, who I presume is Dr. Christison, thus speaks on this point: “*Can a female be ignorant of her pregnancy, till the child is brought forth?* There are manifestly three conditions required before we can believe such a thing possible, viz., that impregnation took place without her knowledge, that her pregnancy imitate some natural disease, and that her delivery be accomplished either suddenly or without her knowledge.” As to the first, he concedes that it may take place if she be not a virgin, and in every circumstance during the profound sleep induced by narcotics. It may also be deemed to be hydrometra or dropsy of the uterus, and thus deceive, during the whole progress of pregnancy, not only the female, but the most accomplished accoucheurs. The last we know does sometimes occur. Thus, he remarks: “It is obvious that a person may be delivered without being previously aware of her pregnancy; but since each of the three requisite conditions is exceedingly rare, we may justly pronounce it barely within the bounds of possibility, and only to be credited, in individual cases, when the female gives sufficient evidence that the conditions in question did actually exist. Further, as the third condition can exist only in the case of those who have borne children, the plea of ignorance must necessarily be excluded from the greater number of trials, which too generally concern those who have erred for the first time.” (Vol. xix. pp. 452-4.)

Where the female is an idiot. An instance of this kind occurred to Dr. Desgranges, in a young woman in France, who, having long been tempted, was at last prevailed on to have connection in the bath, as this, it was stated, would prevent conception. In a short time, however, the menses ceased. She became alarmed for her health, and consulted several physicians, who administered medicines; and in this state she continued without suspicion until the approach of labor. Dr. Desgranges states it as his opinion that the assurances of her lover had banished all ideas of the possibility of pregnancy. The female made this assertion herself to him, and her conduct previous to delivery was calculated to strengthen it, as there were no attempts to conceal herself.*

Where a female has conceived when in a state of stupor, either from spirituous liquors or narcotics, or when in a state of coma or asphyxia. A virtuous young woman was thus violated at Lyons, during the period when the horrors of the French revolution were at their height. A powerful dose of opium was administered; the crime was completed; and in a short time she found herself pregnant, without knowing by whom.

In all other cases, the female may, indeed, entertain doubts concerning her situation; but doubt presupposes something to be suspected, while ignorance is not aware of anything.†

* This and the succeeding case were communicated to Foderé by Dr. Desgranges. (Foderé, vol. i. pp. 496, 497.)

† I find the following case mentioned in Dr. Gooch's Lectures on Midwifery, p. 81. As he seems to have credited it, it is probably an exception to the rule I have before quoted from him: "A maid at an inn, who was always thought to be virtuous, and bore a good character, began to enlarge in a way which excited suspicions of pregnancy. She solemnly declared that she never had connection with any man. At length she was delivered, and was afterwards brought before a magistrate to swear to the father; but she repeated her former declaration. Not long afterwards, a post-boy related the following circumstances: That one night he came to this inn; put his horses in the stable, and went into the house, and found all gone to bed except this girl, who was laying asleep on the hearth-rug; and without waking her, he found means to gratify his desires. This shows that impregnation may take place without the knowledge of the female, or any excitation of the sexual passion."

2. *Can a female become impregnated during sleep, without her knowledge?* This question has already been incidentally noticed, and it is not necessary to enlarge on it in this place. In females habituated to sexual connection, or where sleep is unnaturally produced, there is no doubt of its occurring; whereas, in the opposite cases, the probability is greatly lessened. Authors, in remarking on this question, run into copious disquisitions on what is necessary to cause conception, but on this I have already intimated an opinion, which it is not necessary to repeat.*

* The following case may be added to those already related: A pregnant female, in her last moments, solemnly declared that, to her knowledge, she never had connection; but that a person in the family, some time previous, had given her some wine to drink, after which she fell into a profound sleep. She was not, however, conscious of anything having occurred to her during that state; but mentioned the circumstance as probably explaining her situation. (Meierius in Brendel, p. 99.) [The following very curious case was communicated to me by a very respectable member of my class, Mr. (now Doctor) John Hurley: "I knew, in Ireland, a married woman who, previous to her marriage, had a child, but never for thirty years could tell who the father was, as the 'rape' was perpetrated during her sleep. Thirty years afterwards the man who committed the crime confessed that he did it. I knew all the parties; the woman, her child, her husband, and the ravisher."]

CHAPTER VII.

DELIVERY.

PART I.—1. Signs of delivery—period within which the examination should be made. Concealed delivery. Pretended delivery—modes in which it may present itself—where there has been no pregnancy—when there has been previous delivery—where there has been an actual delivery, but a living child has been substituted for a dead one. Appearances on dissection, indicative of a recent delivery. Case of Mr. Angus. *Corpora lutea*—their value as a proof of impregnation. 2. Possibility of delivery without the female being conscious of it. Whether a female, if alone and unassisted, can prevent her child from perishing after delivery: Application of this in cases of infanticide: Instances in which this plea should be received.

PART II.—1. Signs of the death of the child before and during delivery. 2. Signs of its maturity or immaturity—its appearance, size, length, and weight at various periods during pregnancy. Weight of infants born at the full time—length. Other characters which mark the maturity of the child. 3. The state necessary to enable the new-born infant to inherit—its capability of living—the time when it is generally deemed viable. Laws of various countries as to what constitutes life in the infant, and thus enables it to inherit—Roman, French, English, and Scotch laws. Medico-legal cases, in Italy—State of New York. Unborn infants recognized. Infant extracted by the Cæsarean operation—their capability of inheriting: Laws on this subject. First born of twins. How far deformity incapacitates from inheriting. Monsters: Laws on this subject.

DELIVERY may be considered—1, as it respects the mother; and 2, as it respects the child. We shall accordingly divide the chapter into two parts; and with respect to the mother, we shall notice—

1. Concealed and pretended delivery.
 2. Some medico-legal questions connected with the subject.
- The second part will comprise a view of—

1. The signs of the death of the child before or during delivery.
2. The signs of maturity or immaturity.
3. The state necessary to enable the new-born infant to inherit.

PART I.

I. *Concealed or pretended delivery.*

Delivery, whether concealed or pretended, can alone be elucidated by referring to its real signs; and it will therefore be proper to commence with a notice of them.

If the female be examined within three or four days after the occurrence of the delivery, the following circumstances will generally be observed: greater or less weakness, a slight paleness of the face, the eye a little sunken, and surrounded by a purplish or dark-brown colored ring, and a whiteness of the skin, like a person convalescing from disease. The belly soft, the skin of the abdomen lax, lies in folds, and is traversed in various directions by shining, whitish (sometimes pearly) lines, which especially extend from the groins and pubis to the navel. These lines, called *lineæ albicantes*, are owing to the giving way of the true skin under the distention caused by the gravid uterus.* [They are most numerous on the lower part of the abdomen, and are not unfrequently seen on the nates and upper part of the thighs. They give the skin a reticulated or roughened appearance.—C. R. G.] The breasts, particularly about the third or fourth day after delivery, are tumid and hard, and on pressure emit a fluid, which at first is serous and afterwards gradually becomes whiter; and the presence of this secretion is generally accompanied with a full pulse and soft skin, covered with a moisture of a pecu-

* Along with these, Dr. Montgomery (pp. 304, 307) has *sometimes* noticed a brown line, of about a quarter of an inch in breadth, extending from the umbilicus to the pubes, and especially in women of dark hair and strongly-colored skin.

liar and somewhat acid odor. The areolæ round the nipples are dark colored. The external genital organs and vagina are dilated and tumefied throughout the whole of their extent, from the pressure of the fœtus. The uterus may be felt through the abdominal parietes, voluminous, firm, and globular, and rising nearly as high as the umbilicus. Its orifice is soft and tumid, and dilated so as to admit two or more fingers. The fourchette or anterior margin of the perinæum is sometimes torn, or it is lax, and appears to have suffered considerable distention.* A discharge (termed the lochial) commences from the uterus, which is distinguished from the menses by its pale color, its peculiar and well-known smell, and its duration. The lochia are at first of a red color, and gradually become lighter until they cease.†

These are the signs enumerated by the best writers on the subject, and where they are all present, no doubt can be entertained that delivery has taken place. Several of them, however, require further notice, for the purpose of indicating the mistakes which observers may experience concerning them.

1. The lochial discharge might be mistaken for menstruation or fluor albus, were it not for its peculiar smell, and this it has been found impossible, by any artifice, to destroy.

It also is variable as to the time of its continuance. In some it does not remain red for more than a day or two.

2. The soft parts are relaxed from menstruation, though very rarely as much as from delivery; but in these cases the os uteri and vagina are not so much tumefied; nor is there that

* "With the birth of the first child, the commissure is generally torn through and the fossa disappears with it, though not always: so that the existence of these parts is no disproof of previous childbirth, and I remember myself a case in which, though I had delivered the patient not without difficulty, with the forceps, the commissure and the fossa existed afterwards in all their perfection." (Blundell's Lectures, *Lancet*, N. S., vol. iv. p. 641.)

† Foderé, vol. ii. sec. 1; Mahon, vol. i. pp. 166 to 170; Capuron, p. 124; Hutchinson on Infanticide, p. 90; Burns, p. 326.

tenderness and swelling. Dr. Montgomery attaches great importance to a peculiar condition of the os uteri. Its labia, he says, in those who have borne children are jagged and notched. There is no other cause except childbirth that can leave this state. The converse is not true; the unfissured state of the os does not negative a previous pregnancy. [I have seen two cases where the os was smooth, regular, and *even circular*, in one of which parturition at term had taken place once, in the other three times.—C. R. G.] Again, when all signs of contusion disappear after delivery, the female parts are found pale and flabby. This does not follow menstruation.

3. The presence of milk. This must be an uncertain sign, for the reasons stated in the chapter on Pregnancy. "*It is possible for this secretion to take place independently of pregnancy.*"* The most unequivocal form in which it can appear, is when the breasts are tense and painful, and filled with the fluid of its usual nature—not serous or watery, as is observed in pretended cases. It is also to be remarked, that this secretion goes on during the presence of the lochia; while, on the contrary, the breasts become flaccid and almost empty, if the menses supervene, and fill again when they disappear.† Should, therefore, a case occur where doubt is entertained, it would be proper to notice the state of the breasts while the discharge (of whatever nature it may be) is present.

4. The *linæ albicantes*, being caused by a "giving way of

* Burns, p. 326. The error in the third London edition, of substituting "*impossible*" for "*possible*" in this quotation, and which is noticed by Professor Montgomery, is not mine. It is correct in the edition published here.

† Foderé, vol. ii. p. 15. The following is a very uncommon case: "There is now in this town, a lady sixty years of age, who bore and reared eight children, without her breasts discharging a drop of milk after the birth of any one of them. The glands, when she was confined with a part of them, became somewhat swollen, but no milk flowed out. She never, at any period of her life, had a nipple on either breast." (Dr. Sutton, of Georgetown, Kentucky, *Western Journal of Medicine and Surgery*, vol. iv. p. 317.)

the true skin under the distention caused by the enlarged uterus," may also be the consequence of dropsy, or of lankness following great obesity. Indeed, any cause producing much distention may give rise to them. On the other hand, this state of the parts is occasionally not very striking after the birth of a first child, as they shortly resume their original state.

5. The lineæ albicantes are permanent, and hence should not be depended upon in cases where females have had several children.*

It is hence the duty of the medical examiner to view all the signs enumerated in connection; and where all or most of them are present, it is his duty to declare that they are the consequence of SEXUAL CONNECTION.† So far he can pronounce with safety. But if the question has a bearing on the charge of infanticide, the existence of the child should be proved. I make this remark out of its place, but it cannot be too often repeated in a treatise on legal medicine. To prevent mistakes, inquiry should also be made, whether the individual has labored under dropsy, menorrhagia, or fluor albus; or whether any external violence has been applied to the genital organs.

* They are sometimes wanting in females who have had several children; and Dr. Montgomery saw them very marked in a male laboring under general dropsy. (*Cyclopedia of Practical Medicine*.) A similar appearance (of white silvery lines) has been occasionally noticed by our author on the breasts of young females, particularly when those parts have been greatly and rapidly enlarged during pregnancy. (*Signs of Pregnancy*, p. 296.)

† "All the recent continental writers agree, that if the signs related be all, or nearly all, found in the person of the prisoner, the conclusion is infallible; and that whatever a few obstinate accoucheurs may have been urged by the spirit of contradiction to allege, they are never imitated conjointly by any disease whatever. At the same time, a just and necessary caution is added, against placing reliance on any one sign, or even on several of these together, since frequent experience has shown that, though never found conjointly but after delivery, they are often produced individually by other causes." (*Edin. Med. and Surg. Journal*, vol. xix. p. 454.)

The next subject of inquiry is, *within what time should this examination be made?*

An astonishing difference occurs among females in the period of recovering from the effects of delivery. Some have been known to proceed to their occupation on the day that the child is born, while others remain enfeebled for weeks. Much, in this respect, depends on the constitution and habits of life. There is, however, a term in all, when the signs of delivery disappear, and the parts return to their natural state; and a general rule ought to be established in legal medicine, beyond which an examination should be deemed inconclusive and void. A majority of writers have fixed on the term of eight or ten days, for this purpose; and it is probably a correct one. After that period, the signs become equivocal, and may lead to error, particularly if the delivery has been natural.*

Zacchias remarks expressly, that the proofs of delivery become uncertain after the tenth day. Michael Alberti, a celebrated professor of his day, and Bohn, professor at Leipsic, both recommend the visit to be made within the week; and in a case before the parliament of Paris, in 1767, Petit and Louis reported in favor of acquitting a female suspected of infanticide on the ground that the investigation had been made at too late a period.† The following case, which came before

* Farr (pp. 50 and 51) enumerates certain signs that a woman has *formerly* been delivered of a child, which it may be proper to mention. The loss of all the signs of virginity. The orifice of the uterus wanting its conical figure, and its lips unequal. An expanded and pensile abdomen. The lineæ albicantes. The frænum of the labia obliterated; the breasts flaccid and pendulous; the nipples prominent, and the areolæ of a brown color.

“The most precise criterions of the date of delivery are derived from the date of the milk-fever, the gradual alteration of the lochia, and especially the appearance assumed by the genital organs in their return to the ordinary healthy condition.” (Edin. Med. and Surg. Journal, vol. xix. p. 458.)

† [Montgomery found the os and cervix hardly differing from the unimpregnated form and size, and the parts generally restored in a remarkable degree to the normal condition, in a lady examined five days after delivery at term. After an early abortion, little change will be noted after a day or two.—C. R. G.]

the criminal court of the department of the Seine, in 1809, presents a most striking instance, in which the delay alone seems to have prevented the detection of the crime:—

On the 11th of June, 1809, a female named Aimée Perdriat went to the lodging of a friend called Rosine, who resided in the fifth story of a house in Paris. She requested leave to remain, as she felt ill with a headache and a violent colic. Shortly after her being shown to a room, a lodger in the third story heard a noise in the water-pipe, as if a heavy body passed through it. She was not visited by any one except Rosine and another female, for the purpose of inquiring whether she wanted anything. About five hours after the arrival of Aimée, Rosine observed blood on the stairs and on the floor of the chamber; and Aimée remarked that her menses flowed very profusely.

Suspicious appear to have been excited; and on the 17th, the privy was searched. A foetus, placenta, and bloody clothes were found; and two surgeons, who examined the body, deposed that no marks of violence were present, except that the umbilical cord was torn off; that it was a full-grown child; and that from their experiments, it certainly had breathed after birth, and there were proofs of this having continued even in the filthy place from which it was drawn.

She was arrested on the suspicion of her having been the mother of this child; and the suspicion was fortified by a previous refusal to admit the examination of a midwife. On the 15th, 17th, and 27th of July, being more than a month after the supposed delivery, she was examined by Baudelocque, Dubois, Ané, Dupuytren, and Lafarge. They unanimously declared that there was no sign present which indicated the delivery of the female at the time in question. She was accordingly acquitted.*

It is impossible, I conceive, to reflect on this case, without coming to the conclusion that this woman was guilty. But

* Foderé, vol. ii. p. 18.

if the physical signs of the crime are so slowly attended to, judges are certainly justified in leaning to the side of mercy.*

Delivery is most commonly CONCEALED under the idea of destroying the offspring immediately after birth. In suspected cases, therefore, the examining physician should attend—1. To the proofs of previous pregnancy. On these I have already dilated, and will only add, that ordinarily no investigation has taken place at the time when this was advancing. Circumstantial evidence is not to be trusted; but it is proper to inquire whether an enlargement of the abdomen has been observed, whether this was connected with any apparent disease, and whether any precautions as to dress were used to conceal it. 2. The proofs of recent delivery.† 3. To the

* A case of an opposite nature, where the female was evidently accused wrongfully, with the reasoning of Zaccchias in her favor, is contained in his *Consilia*, No. 69. There was no milk present; the breast flaccid; no lochial odor; the parts very slightly tumefied, and her strength not affected. He deemed it nothing more than a profuse menstruation, following a retention which had caused the enlargement of the abdomen.

Ovarian dropsy has also been mistaken for pregnancy, and the character of the female injured, until a proper investigation has led to the establishment of the truth.

† The following case, which I find in a recent journal, is a most unequivocal one, and we can only explain the decision by supposing that some *superior influence* intervened to quash the investigation:—

A female, in June and July, 1827, complained of dysmenorrhœa and its accompanying symptoms. Her abdomen enlarged, and there was a suspicion of pregnancy. But she denied its correctness, and attributed her illness to wet feet. She was dismissed from service, and returned to her parents. On the fourteenth of March, 1828, she was understood to have had so severe a hemorrhage as to be confined for several days to her bed. The abdomen was reduced in bulk. These circumstances led to a legal inquiry. Drs. Millet and Giraudet examined her on the twenty-fifth. They found her skin warm, countenance slightly flushed, pulse full and frequent, and tongue natural; the breasts tumefied and their veins enlarged, and on continued pressure, a thick milky fluid was obtained in abundance. The abdomen was a little swelled, umbilicus projecting, (*saillant*,) *lineæ albicantes* present, and the skin wrinkled and contused. The insides of the thighs had also red spots. On examination per vaginam, the uterus was found heavy and more voluminous than in the unimpregnated state. Its orifice was soft, irregular, and readily admitted two fingers. A thick, yellowish matter, of the odor of fish-oil, issued from the genital organs, and

connection between the supposed period of parturition, and the state of the child that is found. An infant recently born is indicated by the redness of the skin and by the attachment of the umbilical cord to the navel; and the female, if the mother, will be found to have the marks of a late delivery on her. The question, whether it was living after birth, belongs to infanticide.

In PRETENDED DELIVERY, the female declares herself a mother, without being so in reality. This is not so revolting to our feelings as the former, but it is, notwithstanding, improper, and should be guarded against. Its most common origin is cupidity, or a weak desire to produce an heir to large estates; and hence, we hear most of it in Europe, where property is entailed, and families anxiously desire the birth of a son to perpetuate their honors.

In France, pretended delivery was formerly punished with infamy and banishment. In 1772, a female in Paris, who was sterile, resolved to gain the favor of her husband by pretending pregnancy, and at the end of the proper period obtained an infant from one of the hospitals. She effected this by the aid of a midwife, who attended during the assumed labor. Unfortunately, however, the parents of the child repented of having put it in the hospital, and endeavored again to obtain it. Failing in this, they took steps to discover where it was, and, ascertaining, a full disclosure took place. The woman was sentenced to make the *amende honorable*, with a writing on her breasts, containing these words: "A woman who stole a child, in order to pretend being a mother;" and was afterwards banished during her life from Paris. The midwife bore a similar writing, which purported that she was

these externally were much dilated, flaccid, and as if recently swollen. Le frein de la vulve etait déchiré.

The medical examiners could do no less than to declare that a delivery had very recently taken place. The criminal tribunal, however, refused to pursue the subject on the ground of the irreproachable manners of the female and the appearances noticed arising from some other cause! Well might Leuret, the reporter of this case, ask whether hemorrhage alone would produce all these signs. (*Annales d'Hygiène*, vol. iii. p. 221.)

one who, abusing her station, had assisted and favored the pretending of maternity, and she was condemned to perpetual imprisonment. The parliament, however, on an appeal, lightened the punishment, and ordered her to be admonished and fined.*

The penal code now in force in France (sect. 345) prescribes imprisonment as the punishment for concealing an infant, for substituting one child for another, and for pretending that a child has been born.†

Pretended delivery may present itself under three points of view: 1. *Where the female who feigns has never been pregnant.* This, if thoroughly investigated, may always be detected. There are signs which must be present, and cannot be feigned. An enlargement of the orifice of the uterus and a tumefaction of the organs of generation should always be present, and if wanting, are conclusive against the fact. Dr. Male mentions a case which happened to a surgeon in Birmingham not long since. "Being called to a pretended labor, a dead child was presented to him, but there was no placenta. He proceeded immediately to examine the woman, and found the os tinæ in a natural state, nearly closed, and the vagina so much contracted as not to admit the hand. Astonished at

* Foderé, vol. iv. p. 406, from the *Causes Célèbres*. "A case, worthy of record, occurred lately in the north of Scotland. A fœtus was found in a sink, and notice of this occurrence was immediately given to the clergyman of the parish, just as he was going to church. The worthy pastor was aware that a very few days' delay might render all inquiry fruitless, so at the conclusion of the service, he informed the congregation of what had happened; adding, that as the child was found within the bounds of the parish, an imputation would necessarily lie against the young women of the parish, and jealousies, doubts, and suspicions would arise, to the total subversion of Christian charity and good neighborhood throughout his cure, and inviting all the young women who wished to maintain their reputation to exhibit themselves next morning before the kirk session. Accordingly, on the following day, the minister and elders, with a midwife and the village surgeon, as assessors, held a *grande reconnaissance*, by means of which the unfortunate mother was detected. She was found guilty of concealment of pregnancy." (DUNLOP.)

† Capuron, p. 18.

this appearance, he went to consult a medical friend; but before any further steps were taken, it was discovered that he had been imposed upon. The woman, in fact, had never been pregnant, and the dead child was the borrowed offspring of another. She was induced to practice the artifice, to appease the wrath of her husband, who frequently reproached her for her sterility.”*

Dr. Billard, of Angers, in France, relates the following: A farmer, aged seventy-two, had been married four years to a female, aged forty-two, when she declared herself pregnant. Her abdomen gradually enlarged. On the 27th of July, 1829, she stated that when alone, at break of day, she had been delivered of a female infant. She had cut the cord and made the ligature, and the after-birth, which could not be found, she had left at the door of the house. In proof of her narrative, was her bloody linen, and a child which, when placed at her breast, could obtain no milk. The husband was at first elated with the circumstance, but soon became suspicious through the remarks of his relatives, and he delayed to register the child.

A legal inquiry was instituted, and Dr. Billard was appointed the medical examiner. The infant, from her account, was fifty-three hours old. It was seventeen or eighteen inches long. The epidermic exfoliation was in full activity, and the skin red. The cord had fallen off that morning. It was buried, but he caused it to be disinterred. It was wrinkled, dry, slightly sanguinolent at one end, and brown and neatly cut at the other. A proper ligature was also found on it. The infant had thick hair, it cried lustily, moved and drank with perfect freedom; the nails were formed, and none of the sebaceous matter, common to new-born infants, was found on it, nor was any meconium observed.

Dr. Billard decided from these circumstances, and particularly from the state of the cord, and its falling off spontane-

* Male, p. 212. A case of a somewhat similar nature is mentioned by Capuron, p. 110, and another by Mr. Thompson, in *London Med. Gazette*, vol. xix. p. 231.

ously, from the color of the skin and the exfoliation, that instead of two, the infant was probably from five to seven days old. And further, that from the state of the cord, it had evidently been secured by an expert, and not by a solitary female laboring under the effects of present delivery.

Dr. B. now examined the pretended mother. The breasts were not enlarged, nor were there any marks of the secretion of milk present. The abdomen presented no lineæ. There was no discharge from the vagina, and, indeed, that part was contracted, and the labia perfectly natural. The uterus was light and easily raised, and had the feel of perfect contraction. Its mouth was neither tumefied nor irregular. The result was unavoidable; Dr. Billard denied her previous pregnancy and delivery, and she was forced to confess the fraud.*

The case of *Day v. Day*, published in 1840 by G. L. Craik, in his "*English Causes Célèbres, or Reports of Remarkable Trials,*" deserves an analysis in this place.

Thomas Day, of the County of Huntingdon, died in 1775, leaving two sons, Thomas and John. He devised his property, which was valuable, to the oldest for life, with remainder to the heirs of said son, and in default of such issue, to his younger son in fee. Under this will, Thomas succeeded to the estates. He married one of his servants, Mary Lakin, the daughter of a carpenter, who, after having borne him a daughter, which died, professed herself, in the latter end of

* *Annales d'Hygiène*, vol. ii. p. 227. "March 21, 1775, a very extraordinary affair happened at a certain hospital. Two women, one of whom having the appearance of a nurse, the other of a maid-servant, applied to the committee to let them have a male child, the youngest in the hospital, for their lady, who wanted to adopt one as her own. These women, on the committee's closely examining them, confessed that the lady's husband was gone abroad, and as she had told him before he went, that she believed she was pregnant, it was necessary to show him a child; they likewise acknowledged the lady came from the Isle of Wight to London, to lie in. As it appeared that the adoption of this child was calculated to deprive some heir at law of an estate, or for some unlawful purpose, the intention of this paragraph is to caution those persons whom it may concern, to be on their guard against such infernal practices." (*Dodsley's Annual Register*, 1775; *Chronicle*, p. 101.)

the year 1774, to be again pregnant. She went to her native place in Staffordshire, under pretence of being delivered there, where she might have the attendance of her mother, and returned in March, 1775, with a child which she called her own, and which her husband received as his son, and a short time before his death acknowledged as such in his will. Not long after, a separation took place between the husband and wife, and they continued apart until October, 1783, when the former died. The minor, by his trustees, entered into possession of the estates of his father.

It appears that some time previous to the death of Thomas Day, he received an unsatisfactory account respecting the birth of the child, and an attorney, at his request, called on Mrs. Day concerning the same. She stated that the *child was not hers*. On a subsequent occasion, she swore before a master of chancery, that she had lain in of a child, which died, and that she had prevailed on a relation to give up her child, and that it was this child which she had taken to her husband. Mr. Day, on being made acquainted with these circumstances, signed the deed of separation, but declared, that although the child was not his, yet as he was fond of it, he would take care of it.

Information of these and other corroborating facts having reached Mr. John Day, he instituted a trial by ejectment for the recovery of the estate. It came on at the assizes, in 1784, before Lord Loughborough, Chief Justice of the Court of Common Pleas, and a special jury.

For the plaintiff, it was proved on the testimony of several witnesses, male and female, that Mrs. Day, at the time of leaving home, had not the appearance of being pregnant; that she had not that appearance during any part of the three months which she had spent at her father's house, in Leigh; and that she did not lie in there. It was positively sworn by a female domestic in the house of her father, that when Mrs. Day and her mother set out for Huntingdonshire, at the end of three months, they had no child with them. Another female stated that she had frequently slept with Mrs. Day

while she was at Leigh, and washed her linen, and she did not appear to be with child. It further appeared in testimony, that Mrs. Day took away the infant of her sister-in-law, and retained it several days; nor did she return it until compelled by a magistrate. This was in February, 1775.

The parties (Mrs. Day and her mother) were traced to Litchfield, at which place they had no child with them. At Atherstone, however, they arrived on foot, and went to the house of an aunt. Mrs. Day had a child with her, and said, "I have brought you my child." The aunt replied that she did not know that she had one, to which Mrs. Day answered, "Oh yes, I have been to my mother's to lie in, and the child is five weeks old." They remained some days, and then proceeded homeward. Two females, intimate or resident in the house, testified that Mrs. Day did not suckle the child, and that she stated that she had no milk. The suspicions of the husband as to its paternity were also fully proved.

This was the evidence for the plaintiff. On the part of the defence, after producing the will of Thomas Day, in which he described the defendant as his son, and left him all the property, female witnesses were produced to prove that Mrs. Day appeared big with child when she left home; some of them swore that they had seen her suckle the child, while others had never witnessed it.

Elizabeth Rutter deposed that Mrs. Day was delivered of a child at Broseley, in Shropshire, during the month of January, and that she and the midwife were the only persons present at the birth; that Mrs. Day remained with her a month, and then returned home. This testimony was confirmed by Mrs. Cornes, the step-mother of Rutter. Mrs. Day, the mother, was next examined, and her testimony agreed with that of the two last witnesses. She had left her father's house on account of a quarrel, and had arranged to be confined at the house of Rutter. She explained away the fact of not having the child with her at Litchfield, by saying that she had left it at a place near, while she went on a visit to her mother's. She also acknowledged that she had sworn that the child was not hers, but it was for the purpose of getting it back from Mr. Day.

Several witnesses swore to the great resemblance of the child to Mr. Day.

Lord Loughborough, in summing up, remarked that the evidence of the plaintiff was circumstantial only, and not positive, and it was necessary, in a case of this description, to make out the fact by the clearest evidence. On the other hand, the child had been brought up as the son of Mr. Day, and his will had fully confirmed this belief. Notwithstanding the improbable accounts of the mother and her witnesses, he advised a verdict for the defendant, which was accordingly found.

In a few months after the trial, Mrs. Rutter and her mother came to Mr. Horwood, the steward of the Marquis of Stafford, at Trentham Hall, near which they resided, and told him that what they had sworn on the trial was false, that they had never been happy since, and were now desirous of confessing the truth. On being carried before a magistrate, they repeated this statement and deposed that Mrs. Day had promised them money (which she had not paid) if they would tell the story of her being brought to bed at Broseley. The father of Mrs. Rutter also swore that Mrs. Day had urged him to accompany his wife and daughter to the assizes and confirm their testimony, which he had refused to do, knowing it to be false. Important information was further procured as to the females who had obtained the child for Mrs. Day, and also as to its actual mother.

Mr. John Day, however, was so much injured in his property, by the expenses of this suit, that he was unable to commence another. He died in 1795. His son, being in a situation to incur the risk of a new trial, instituted it, and the case was again brought to issue in 1797. Mr. Erskine was the leading counsel for him, while on the other side were Messrs. Le Blanc and Garrow, afterwards judges. The defendant was now a man grown, of excellent character, and highly popular, so much so that Mr. Day, in a subsequent publication, asserts that "the town of Huntingdon, during the trial, more resembled the scene of a contested election than an assize town during the solemn administration of jus-

tice; and such was the state of confusion in the town, at the time of the trial, that I was obliged to apply to the mayor to order out his constables to keep the peace, and to enable me to bring my witnesses into court."

In analyzing this second trial, I will only notice such additional circumstances as were developed concerning the supposed pregnancy and delivery of Mrs. Day.

It was proved by a respectable witness that Mrs. Day was present at a christening on the 14th of December, 1774; that she stayed all night, was in good health and spirits, and had no appearance of being pregnant; and yet she must have been, if her account was correct, at least seven months or more advanced at this time. It was further shown that she had been present, and stood godmother at the baptism of Edward, son of William Riddle, on the 22d of January, 1775.

Ann Harris swore that she met a female at the Stafford market in February, 1775, who wished her to go in quest of a child; that she accompanied the female to the house of Sarah Hollander, who had recently lain in; and that Mrs. Day had offered money to Sarah if she would sell her child. This was refused by Sarah, and it may be here added that Sarah Hollander was subsequently called as a witness and confirmed the correctness of this deposition. Mrs. Harris further stated that another child was obtained at Wolverhampton, and retained by Mrs. Day until the mother, accompanied by a constable, reclaimed it. This evidence, also, was confirmed by the mother, Mary Rone, and the constable.

Among the witnesses last called for the plaintiff, was Ann Stokes, or Osborne, alleged to be the real mother of the defendant. She deposed that she had an illegitimate child born to Charles Dutten, in the Birmingham Workhouse; that when the child was about thirteen or fourteen weeks old, John Harris made an application to her, on behalf of a lady, whom she afterwards identified as Mrs. Day, for the child, promising to have it well brought up, and that it would have property. She consented, and gave up the child. She never heard of it again until about eleven years thereafter. She was informed

by Mr. Horwood that Mrs. Day resided at Trentham, and accordingly repaired there, but was not allowed to see her. About three years afterwards she was more successful. She saw Mrs. Day, who owned that she had the child from the witness, that it had been well taken care of, and was now alive and well. Mrs. Day further mentioned that there had been a trial about the child.

Mr. Garrow, in his cross-examination, endeavored to draw from the witness an admission that her life had subsequently been a dissolute one, in so far as related to the practice of adultery, (for she had subsequently married.) When hard pressed, she did not deny this, but would not give a direct answer, and said she did not come to swear that. The fact of her interview with Mrs. Day, and the conversation between them, was confirmed by Elizabeth Lakin, Mrs. Day's sister, who was with Mrs. Day at Trentham.

These were the most important facts in behalf of the plaintiff. For the defendant, it was urged by his counsel, that several witnesses were now brought forward, who spoke of circumstances and conversations which they had never mentioned on the trial in 1784. The inference hinted at was, of course, that they might now be bribed.

Mary Harding, then in the service of Mrs. Day, and at that time about fourteen years old, remembered the departure and return of Mrs. Day. She was very large when she left, had all the appearances of pregnancy, and on her return, the witness swore positively that she suckled the child for a quarter of a year. The witness acted at times as a nurse, and was, therefore, positive on this subject. When the child was removed by Mr. Day, the mother manifested much grief and distraction of mind. The testimony of Mary Reed, another house-servant, was to the same effect. "She had seen Mrs. Day suckling the child many times, and had seen the milk drop from her breast." Mr. Peck, a surgeon and accoucheur in the vicinity, who had attended Mrs. Day in her first labor, deposed that this had been a painful one, and that Mrs. Day had assigned this, among other things, as a reason for going to her

mother's; that the subsequent pregnancy was a frequent subject of conversation between him and Mr. and Mrs. Day, and that he had remarked to the former, that "he had lost a job by Mrs. Day going into the country to lie in." Mr. Peck also saw Mrs. Day about two weeks after her return, and saw the child attempt to suck, "but I did not see the milk; I am not certain of that." Another female, however, swore positively that Mrs. Day had suckled the child in her presence, and when it was removed from the breast, she saw the milk drop.

Several witnesses, both male and female, deposed to the striking resemblance between the defendant and the late Mr. Day.

The jury, after a charge from the judge, rather leaning toward the defendant, brought in a verdict for the second time in his favor.

It is added by the editors that the defendant declined receiving the costs of the trial, amounting to £480, although they were tendered to him, accompanied with an assurance that as soon as he should have got the money, another action of ejectment would be brought. He also refrained from claiming one hundred acres of land in the possession of John Day, although his right to them was clearly as good as to the other property. Finally, he proposed a compromise, by giving up this very property, which, after much solicitation by his friends, Mr. John Day reluctantly assented to, and thus a bar was placed to all further litigation.

It is also stated, that some time subsequently the defendant was visited at his house by his reputed mother, Mrs. Osborne.

Was or was not this a case of *Pretended Pregnancy and Delivery*? I incline to believe that it was. The only circumstances (medical) that seem to militate against this opinion, are the presence of milk in the breasts, and the remarkable resemblance between the supposed father and son. Yet both these might actually exist without necessarily involving the result decided upon by the jury. We now know that even unmarried females have suckled children; and is it not possible that, by constant irritation, milk may have been produced in

the breasts of this female, who had previously borne a living child? As to the resemblance, while we readily allow that this was an extraordinary fact, we must also confess that it has often occurred in individuals born thousands of miles from each other.

The following case was tried at the Ontario circuit, in the State of New York, during the year 1840. An action of ejectment was brought by the widow of Oscar F. C., against two of his brothers, to recover a large and valuable farm. She claimed the farm in fee, as the heir at law of a child, to which, it was alleged, she gave birth after the death of her husband, but which died before the commencement of the suit, leaving her entitled, as heir, to the whole inheritance. The brothers claimed as heirs at law, admitting her right of dower, but denying her having given birth to a child.

It appeared by the testimony, that the plaintiff was married in July, 1835, to O. F. C., he being then a ward in chancery, as an habitual drunkard; that he died on the 6th of October, 1837, of delirium tremens, leaving no issue born during his life.

In proof of the birth of a posthumous child, Dr. K., a practicing physician at Geneva, Mrs. K., the mother of the plaintiff, at whose house she was, and a sister of the plaintiff, all testified that on the afternoon of the 17th of July, 1838, she gave birth to a female infant; that they were present and assisted at the birth; that the child lived about three weeks, and then died, and was interred in the burying-ground of the C. family, on which occasion there was a large funeral attendance, a funeral sermon preached, and the plaintiff's family went into mourning. Mrs. L., a respectable female, and near neighbor of that family, also testified that she was present, not at the very moment of the birth, but immediately thereafter; that she saw all the appearances usually observable on such occasions; received the new-born infant from the arms of the physician as he performed the last act of separation from the mother; that she washed and dressed it in the apparel that had been prepared, and placed it in the plaintiff's arms,

she being by that time restored to her bed. Many witnesses testified that she nursed this child as long as its health continued, and when that began to fail, the doctor procured a puppy to supply its place at the breast. Much proof was also adduced of the appearance of the widow for months previous to her confinement.

For the defendants it was stated that the above testimony was, in the main, false, and that the child was a supposititious one. In support of this, the following testimony was adduced.

A middle-aged man was called, who testified that in 1838, and for several years previous, he was the captain of a canal boat, and that a young unmarried woman, who was the maid on board his boat, was discovered in the spring of 1838, to be pregnant, and, as he had reason to believe, by himself; that having a family, and being desirous of concealing the transaction, and at the same time of providing for her comfort, he applied to a friend in Geneva to procure a suitable place for her during her confinement. This friend recommended him to Dr. K., and he accordingly saw him. He was asked by Dr. K. when the child would probably be born, and upon being informed that the birth might be expected in the early part of July, he, the witness, was directed to call again on the following day. He did so, and the doctor then asked him if he and the girl would be willing to part with the child after its birth, provided it could be well brought up and inherit a large property; that the doctor knew of a widow, whose husband had recently died, and if she could have a child within nine months after his death, it would get a large estate. The name and residence of the widow were withheld. The witness partially consenting to the proposition, was requested to bring the girl to the doctor's office, which he did, and after some private conversation between her and the doctor, he left her there, under his assurance that she would be well provided for. Not being entirely satisfied that all was right, he called on the doctor some days afterwards and insisted upon being informed where the girl was; that he could obtain no informa-

tion on the subject, and thereupon addressed a letter to her, inclosing some money, which was placed in the doctor's hands; that being still dissatisfied, he again called on the doctor a few days afterwards, and threatened to expose him unless he informed him where the girl was; the doctor left his office, and after a short absence, returned and directed him to a neighboring house, which he understood to be the residence of old Mrs. K., where he had an interview with the girl, and that he did not see her again until the latter part of July, 1838. He left her with the doctor about the middle of May. The witness also testified, that some time after the girl was delivered of a child, and in the latter part of July, or the first of August, in the same year, he had a conversation with the doctor, who stated to him that the child lived eight days, and that after its death, he buried it in the burying-ground about midnight.

The female referred to by the last witness was next called, and testified to her going to the office of Dr. K. That he told her, in a private conversation, that if she would part with it as soon as born, he could make it heir to a large property, and have it brought up without any care on her part. She neither assented to nor rejected this proposition. The doctor took her to the house of Mrs. K., where she remained until the 17th of July, when she gave birth to a child, which was immediately taken out of the room where she was, by a sister of the plaintiff, and that she had not seen it since; that the doctor, and mother, and sister of the plaintiff were present at the birth. They had all told her that the child died immediately after it was born, and the doctor said he had buried it. She remained at Mrs. K.'s nine days after the birth of the child, when she was removed to a place a few miles distant, provided for her by Mrs. K. While at Mrs. K.'s, she was kept in a room up stairs, without being permitted to go into the street or look out of the window, or see any person except the family. She knew that the child was born alive, for it cried twice before it was taken out of the room, and she heard a child cry every day down stairs, after that, as long as

she remained, but had not heard anything of that kind previously. She was positive that her child was *born during the afternoon of the 17th of July.*

Several witnesses also deposed that they had not observed any enlargement of the plaintiff until some time in the month of May.

To rebut this testimony, Dr. K. stated that he had received the last witness at the request of the captain, and obtained board for her at Mrs. K.'s, because it was convenient to attend her at the same place where he was attending the plaintiff; that she had a male child there, and he was present at its birth; but that it was born on the 19th of July, two days after the plaintiff was put to bed; that the child died as soon as it was born, and he took it to his office and put it into a jar of spirits to preserve it, but the spirits not being strong enough, it "spoiled." The mother and sister of the plaintiff again corroborated the statement of the doctor in all its particulars.

After a full and able argument by counsel, the case was committed to the jury, who, in a few minutes, returned a verdict in favor of the defendants.

The above narrative is taken from a newspaper report, but I have reason to believe that it is substantially correct. I have been informed by one of the counsel for the defendants, that a strong point against the physician was, his inability to account for the remains of *two* children. Had he been able to designate any place where the second was to be found, search would instantly have been made for it.

Concealing that the verdict was just, it is easy to explain how Mrs. L. was called exactly at the moment when her testimony would prove available.

It is not among the least curious incidents in this case, that the mother of the child was subsequently well married, and that her husband was unaware of her previous condition, until the subpœna was served on her. On being informed of it, he consented, and indeed insisted, that she should obey the process of law, and disclose the whole truth. The plaintiff and

her friends probably came into court with the idea that the circumstances relative to the girl were totally unknown to all, except themselves and the parties immediately concerned, and these last, they doubtless supposed, would not be desirous of exposing themselves. Such was, indeed, the fact, and the subpœnas were actually issued without being aware of how much importance the testimony of the captain and female might prove.

2. *Where the pretended pregnancy and delivery have been preceded by one or more deliveries.* The facility of counterfeiting in this case is certainly greater than in the former, particularly if the examination be not made within eight or ten days. Attention should be given to the following circumstances: The mystery, if any, that has been affected respecting the situation of the female—her age, and particularly whether she has been previously barren; and the condition of the husband, whether aged or decrepid. All these would be corroborating evidence against the actual occurrence of delivery.

3. *Where the female has been actually delivered, and substitutes a living for a dead child.* This cannot be elucidated by physical proofs, unless some persons have been present at the delivery. And in this, as well as in the former case, a strict examination should be instituted of the witnesses who have attended. Zacchias and Mahon* lay considerable stress on the resemblance that may exist between the parent and the child; but this is of little value.

It sometimes happens that the female dies shortly after the supposed or pretended labor; and it is necessary to examine the body in order to ascertain the truth. We are to examine both the uterus and its appendages, as it is evident that the former may have been enlarged from causes independent of actual pregnancy.

The appearances that are considered to indicate delivery

* Zacchias, lib. i. tit. 5, quest. 4; and lib. viii. tit. 2, quest. 8; Mahon, 1, p. 209.

are the following: "The uterus being found like a large flattened pouch, from nine to twelve inches long. Its cavity contains coagula or a bloody fluid, and its surface is covered by the remains of a decidua.* Often the marks of the attachment of the placenta are very visible; and this part is of a dark color, so that the uterus is thought to be gangrenous by those who are not aware of the circumstance. The surface being cleaned, the sound substance of the womb is seen, and the vessels are observed to be extremely large and numerous. The Fallopian tubes, round ligaments, and surface of the ovaria are so vascular that they have a purple color; and the spot where the ovum escaped is more vascular than the rest of the ovarian surface. This state of the uterine appendages continues until the womb returns to its unimpregnated state. A week after delivery, the womb is as large as two fists. At the end of a fortnight, it will be found almost six inches long, generally lying obliquely to one side. The inner surface is still bloody, and covered partially with a pulpy substance, like decidua. The muscularity is distinct, and the orbicular direction of the fibres round the orifice of the tubes very evident. The substance is whitish.† The intestines have not yet assumed the same order as usual, but the distended cæcum is often more prominent than the rest. It is a month, at least, before the uterus returns to its natural state; but the os uteri rarely, if ever, closes to the same degree as in the virgin state."‡

* [A membrane resembling the decidua is sometimes discharged in cases of dysmenorrhœa. This, as well as the true decidua, is now known to be the mucous lining of the uterus. The discovery of a fœtus or chorion, easily recognized by its flocculi, would prove abortion. The membrane alone proves nothing.—C. R. G.]

† The great degree to which the uterus resists putrefaction renders it possible to make this examination satisfactorily many weeks, or even months after death. Caspar (quoted in the *Med. Times*, November, 1851) says he found the uterus (unimpregnated) of a pale red color and firm texture, in the body of a woman who had lain for nine months in a privy, and the soft parts of which were dropping from the bones.

‡ Burns' *Midwifery*, p. 326. The dissections of Mr. Mayo, (quoted in *London Medical Repository*, vol. xxi. p. 343,) and of Dr. Hewson, (*North*

In the uterus which had contracted perfectly, an examination was made on the *second* day after delivery. It measured eight inches in length by four and three-quarters in breadth, and three in the antero-posterior diameter. Its parietes were from one inch five lines to one inch in thickness, and its internal surface, as well as its appendages, corresponded to the description already given.

In another, where the woman died *sixteen* days after mature delivery, the uterus was five inches two lines in length, three inches eight lines in breadth, and its substance averaged, in the body and fundus, from seven to eight lines in thickness.

Dr. Montgomery, from whom I have taken these statements, adds, that at the end of a week, the uterus has a length of between five and six inches, and after a fortnight, does not exceed five inches; its vascularity is diminished, and the thickness of its parietes reduced about one-third.*

In cases of abortion or premature delivery, but of course depending on the length of the period of gestation, the uterus will be found as small in a few days after delivery, as it would at the end of the same number of weeks after parturition at the full term.

John Hunter examined one of a female who poisoned herself about *one month* after impregnation. It was highly vascular, and covered on its internal surface with a pulpy substance, which was evidently coagulated blood. The cervix and os uteri were natural, but the body near the fundus was a little enlarged. Nothing like an embryo could be detected.†

American Medical and Surgical Journal, vol. ix. p. 371,) of females dying immediately after delivery, corroborate the above statement. In both, the os tincæ was much dilated; being in the former, when disposed in a circular form, about two inches in diameter. In Dr. Hewson's case, the uterus was about the size of a man's fist.

* Signs of Pregnancy, pp. 315, 316.

† Transactions, Society for promoting Medical and Chirurgical Knowledge, vol. ii. p. 66; see also Dr. Robert Lee on the state of the uterus in the first month after conception; London Med. Gazette, vol. xxxi. p. 241.

In October, 1845, I received the following narrative from Dr. George Burr, of Binghamton, in this State: On the 16th, a young female, aged twenty, a

Dr. Robert Lee mentions the following particulars of a dissection in a case *two months* advanced. The uterus was double the size of one unimpregnated, and was five inches long, three and a half in the greatest lateral direction, and two in the antero-posterior diameter.*

In a uterus at the *sixth month*, examined by Dr. J. B. S. Jackson, of Boston, the long axis measured nine and a half inches, and transversely, at its broadest part, it was six inches. It was, on an average, three lines in thickness.†

In a case that occurred to Dr. Montgomery, death followed thirteen days after premature delivery, in the *seventh month*. The uterus measured only three inches nine lines in length, by two inches nine lines in breadth, and its substance was from six to seven lines in thickness.‡

hired person, after appearing gloomy for some time, was found drowned in the Chenango canal. No marks of violence were present. On dissection, the uterus and its appendages were found highly vascular; the left Fallopian tube enlarged, and in the corresponding ovarium a fissure. On opening the cavity of the uterus, a small vesicular body of the size of an almond presented itself, and protruded through an incision, and this again was attached to the posterior portion of the inner surface by a delicate vascular connection. The vesicle itself was surrounded by a vascular membrane injected with blood. The vagina was large. Drs. Burr and Jackson, the examiners, gave it as their opinion, that the above was an ovum, and that the female was in the early stage of pregnancy.

On the other hand, this was disputed, from the former good conduct of the female, and also from the statement that some three weeks previous, appearances of a menstrual discharge had certainly been noticed. I fear that the facts are too well marked to countenance the latter belief.

* Medico-Chirurgical Transactions, vol. xvii. p. 493.

† Boston Med. Magazine, vol. iii. p. 580. The cord was $11\frac{1}{2}$ inches long. The child, a female, measured $11\frac{1}{2}$ inches, with fine down on the head, but the nails not formed.

‡ Signs of Pregnancy, p. 316.

The following measurements from Velpeau and Madame Boivin may be useful in some cases:—

Length of the unimpregnated uterus from the most salient point of the fundus to the end of the anterior lip of the neck, 26 lines, and from that to 28. (Velpeau.)

Length of neck, 13 lines.

Uterine walls, 5 lines in thickness.

As I am on the appearances found after death, I may mention that Chaussier and others have, in a number of cases, noticed a peculiar degree of thinning in the centre of the

Cervical walls, $3\frac{1}{2}$ to 4 lines, (2 to 3, Velpeau.)

Weight, without appendages, 4·9 drachms, (Boivin;) 8 to 12 drachms, (Velpeau.)

Breadth of neck, $9\frac{1}{2}$ lines; thickness, 7 lines.

After several Pregnancies.

Total length..... $2\frac{1}{2}$ to 3 inches.

Length of neck 13 to 15 lines.

Length of body..... 2 inches.

Breadth of neck..... 18 lines.

Thickness of neck..... 8 to 10 lines.

Thickness of uterine walls..... 6 lines.

Weight $1\frac{1}{2}$ to 2 ounces.

(Velpeau's Midwifery, p 61; Edin. Med. and Surg. Journal, vol. xxxix. p. 210.)

"The weight of the uterus, at the end of the ninth month, varies from one and a half to two pounds, while the unimpregnated is about 14 drachms in weight, and that of females who have been several times pregnant, 18 drachms." (Orfila, Leçons, 3d edition, vol. i. p. 249.)

"The virgin uterus," says Dr. Montgomery, "is about two and a half inches long, one and three-fourths broad, and about an inch from back to front, with a cavity which would not more than receive into it the kernel of an almond. According to the calculations of Levret, its superficies may be taken at 16 inches, but at the end of the ninth month of gestation, its length is from 12 to 14 inches, its breadth from 9 to 10, and from back to front from 8 to 9 inches. Its superficies is now estimated at about 339 inches; and its cavity, which before was equivalent to three-fourths of a cubic inch, will now contain 408, so that its capacity is increased a little more than 519 times, and its solid substance from $4\frac{1}{3}$ to 51 cubic inches, or nearly in the ratio of 12 to 1." The blood-vessels also increase in size, while the uterine nerves have also been noticed by Wm. Hunter, Chaussier, Tiedemann, and Dr. Robert Lee, to enlarge during gestation. (Signs of Pregnancy, p. 3; London Med. Repository, vol. xxi. p. 167; Edinburgh Med. and Surg. Journal, vol. lvi. p. 268; London Med. Gazette, vol. xxxi. p. 465.)

But, according to Mr. Snow Beck, (Phil. Trans. 1846,) it is doubtful whether the nerves increase in size during pregnancy. Briquet has confirmed the opinion as to the increase in diameter of the arteries, and adds that they acquire an increased elongation, which renders them tortuous, and that this helicine or spiral disposition once produced, is retained ever after during life. It is only (he says) produced by pregnancy. (Edinburgh Med. and Surg. Journal, vol. lvi. p. 289.)

osseous plates of the bones of the ilium, as an indication of having borne children. (Dr. Granville, in Brande's Journal, vol. xx. p. 341.) Mr. Brookes, the celebrated anatomist, remarked, in a lecture before the London Zoological Society, that "an anatomist could always tell, by the thinness of the ossa ilii, if the woman had ever been pregnant; and ascribed this to the pressure of the uterus producing absorption of their internal structure." (Lancet, vol. xii. p. 133.)*

To these it has been customary to add, with great confidence, the presence of a *corpus luteum* in the ovarium. As we shall have frequent occasion to refer to this peculiar body, it may be proper chiefly to describe what is understood by it. The corpora lutea are oblong glandular bodies, of a dusky-yellow color.† In the early stages of pregnancy, and for some time after delivery, they are extremely vascular, except at their centre, which is whitish; and in the middle of this white part is a cavity from which the impregnated ovum is supposed to have proceeded. They gradually fade and wither, but there is no regularity as to the time of their disappearance.‡

* For Rokitansky and Ducrest's statement of an ossific product on the internal surface of the cranium in puerperal females, see British and Foreign Med. Review, vol. xix. p. 293.

† It should be understood that there is considerable diversity of opinion as to the manner in which these bodies are formed. It is supposed—1. That it is by the thickening of the inner membrane of the Graafian vesicle that the corpus luteum is formed. This is the doctrine of Professor Baer. 2. Dr. Montgomery considers that it is formed by and inclosed between the two membraneous coverings of the vesicle. 3. Dr. Robert Lee denies each of these, and asserts it to be formed around the outer surface of both these coats of the Graafian vesicle, and that the stroma of the ovarium is in immediate contact with the external surface of the yellow matter. Dr. Patterson, from his examinations, would seem to show that the second is the correct doctrine, "a lymphic deposit between the layers of the Graafian vesicle." Dr. Patterson's papers are contained in volumes liii., liv., and lv. of the Edinburgh Med. and Surg. Journal, and the reader will find Dr. Lee's, and a discussion between him and Dr. Patterson, in London Medical Gazette, vol. xxxi.

See also T. Wharton Jones, in London Medical Gazette, vol. xxxiii. p. 460, who coincides with Dr. Lee; Dr. Knox, in *ibid.*, p. 605.

‡ Dr. Montgomery found the corpus luteum distinctly visible five months

From the experiments of De Graaf and Haighton, it seemed to be decidedly established, that their existence was a certain indication of previous impregnation; and such was the general belief of the profession.

This subject was very fully considered in the celebrated Angus trial, an abstract of which will give a very good idea of the state of medical opinion at the time of the trial, A.D. 1808.

Charles Angus, Esq., of Liverpool, was, in September, 1808, tried at Lancaster for the murder of Miss Burns, a female residing in his house. The symptoms previous to her death, and the appearances observed on dissection, were such as to warrant a suspicion that she was poisoned. The medical examiners also found the uterine organs in such a state as to lead them to declare that, in their opinion, the deceased had been delivered, a short time before her death, of a foetus, which had nearly arrived at maturity. Accordingly, on the trial, the medico-legal questions agitated were—1. Whether Miss Burns had died from the effects of poison? 2. *Whether she had been delivered of a child recently before her death?** I shall notice the first question in its proper place, and here confine myself to the second.

The testimony respecting her situation, while living, was so contradictory, that nothing satisfactory could be drawn from the conflicting statements.

The appearances on dissection. The uterus was found so enlarged as to be capable of containing nearly a quart of fluid. Before it was removed from the body, Mr. Hay, the surgeon, placed his left hand upon the fundus uteri, and introduced his

after delivery at full term, but not longer. In a case of death five weeks after delivery, it was diminished to one-half. Dr. R. Lee (London Medical Gazette, vol. xxiv. p. 505) says it disappears in three months, except the external cicatrix. Meckel asserted that it was visible at least twelve months. This discrepancy depends, doubtless, on some writers confounding the external cicatrix with the true corpus luteum. (De Graaf and Haighton.)

* Mr. Angus was indicted on two counts—1. For poisoning Miss Burns. 2. For administering poison (oil of savine) in order to procure an abortion.

right hand with the greatest ease into it, until the fingers of his right hand could be felt by those of the left through the fundus. The uterus being taken out of the body, an incision was made along its whole length, and its cavity laid open. The whole internal surface was bloody, and near the fundus there was a well-defined circular space of a deeper color than the rest, and about four inches and a half in diameter. This space was rough and ragged, and a small fragment of what appeared to be the placenta still adhered to it; and the blood-vessels opening upon it were distinctly visible, and as large as a crow-quill, while every other part of the internal surface was smooth. The walls of the uterus were about half an inch in thickness. There was no coagulum in it. The os uteri remained in so dilated a state that the four fingers of a hand, drawn together in the form of a cone, would pass through without in the slightest degree distending it. *Vagina ipsa admodum dilatata. Labia ejus fuerunt livida; et undique sanguine fœdata.*

The medical witnesses for the crown, Drs. Gerard, Rutter, and Bostock, and Mr. Hay, considered these appearances as conclusive in favor of her recent delivery; and they remark, that the enlargement of the uterine vessels within the boundaries of the placental mark, and the mark itself, were to them decisive; that mere enlargement of the cavity of the uterus, and dilatation of the os uteri, and even hemorrhage, might have been occasioned by other causes than pregnancy, as by dropsy; but hydatids would not occasion that mark, nor explain the extraordinary enlargement and dilatation of the uterine vessels within that mark.

On the trial, however, Dr. Carson, of Liverpool, being examined as a witness, objected to the above conclusions, for several reasons. *The great dilated state of the uterus* was such, according to him, that if the mother had parted with a placenta, she must either have flooded to death, or the womb must have been gorged with coagulated blood. To this opinion, the testimony of Sir Charles M. Clarke, lecturer on midwifery in London, to whom the uterus was shown after the trial, may

be opposed. "I have seen," says he, "uteri after the death of patients lately delivered, in whom, however, there was no hemorrhage, which have been contracted in no greater degree than the uterus which is in the possession of Mr. Hay." Besides, it is evident that the uterus had contracted, and was not at its maximum of dilatation; for if it could not contain more than a quart of fluid, it certainly could not, in that state, have contained a foetus with its placenta and membranes.

Dr. Carson next intimated that the appearances, which were supposed to indicate the recent expulsion of a foetus, might be explained on the supposition that *dropsy* or *hydatids* was the disease under which Miss Burns labored. These hydatids, he observed, are attached by pediculi to the internal surface of the womb, and the action necessary to expel them would cause a dilatation of the os uteri. He supposed also, that the vessels nourishing the hydatids might be so much smaller than those nourishing a foetus, that in a state of undue dilatation a flooding might not take place on their expulsion. When pressed with respect to the placental mark, he replied, that the attachment of these dropsical hydatids might have caused it.

I have already adverted to this subject in a previous chapter. I will add, that Dr. Baillie never saw an example of hydatids of the uterus;* and Dr. Denman, although he admits their occasional occurrence, yet observes, that the other species is what is generally observed. A MS. extract from notes of Dr. William Hunter's lectures on the gravid uterus, delivered in 1765, gives the most minute account of these extraordinary productions. "I have seen," says he, "a placenta in the fourth month, all degenerating into hydatids. There are two kinds: one, where the little hydatids are distinct and detached; the other, where they hang together in strings, like bunches of currants. This last sort is the most common in the uterus. They are most common in the placenta,

* Morbid Anatomy, 3d edition, p. 376.

but they may be in other parts of the uterus. Sometimes there are vast heaps of them in the cavity of the uterus, and no remains of the placenta. I ventured, from seeing hydatids coming away from the uterus, to say that the woman was with child, because they most commonly attend the placenta. I have seen pails full of hydatids come away from the uterus, with pains, the placenta and foetus being thus converted."

There is little doubt but that the hydatids generally hang together like a bunch of currants, and are united by a common peduncle or footstalk. Should, however, the reverse be considered probable, it is difficult to conceive where the hydatids could have been placed, as in this case, when the bases of the common footstalks alone extended over a space of four inches and a half in diameter. Three cases are related by Dr. Bostock, to whom they were communicated by Mr. Kendrick, surgeon at Warrington, of the disease under consideration, and in each of them the medium of attachment to the uterus was a placenta about the *size of half a crown*. I will repeat again in this place, what I have before endeavored to prove, by a reference to the best authorities, that there is no case on record where *hydatids of the uterus* have been formed *independent of sexual connection*;* and again, should there be such a case, were the parietes of the uterus increased, or the os uteri enlarged, as in this instance?

The difference of opinion that was thus expressed by the medical witnesses, not only on this question, whether Miss Burns had been recently delivered, but also on the main accusation of poisoning, led to an acquittal. But I believe few can review this case, and not come to the conclusion that she had really been pregnant. The charge of infanticide does not appear to have been made, and of course ought not, without the previous finding of an infant; but in everything that relates to the verifying of sexual connection and its consequences, and which in this instance must have been criminal, the proof seems to be complete. Even hydatids, as we have

* Pages 307, 308.

sufficiently shown, are to be considered as the unquestionable indications of impregnation. If present in this instance, they should have been produced, or at least seen by some medical person.

It was not until after the trial, that the ovaria were examined. They were then divided in the presence of a number of physicians, and a *corpus luteum* distinctly perceived in one of them. Mr. Hay took the uterus and its appendages to London, and showed it to the most eminent practitioners there. He received certificates from Drs. Denman and Haighton, Messrs. Henry Cline, Charles M. Clarke, Astley Cooper, and Abernethy, all stating that it exhibited appearances that could alone be explained on the idea of an advanced state of pregnancy. And it appears to have been universally allowed, that the discovery of the *corpus luteum* proved the fact beyond a doubt.*

Subsequently, however, to this time, Sir Everard Home investigated the subject, and finding what he supposed true corpora lutea in several persons in whom the presence of the hymen forbade the idea of impregnation, and also small cavities from which ova had apparently passed out, asserted that they might be produced by excited passion. Blumenbach is supposed to have been the first who decidedly ascertained that under certain circumstances corpora lutea might be produced without sexual intercourse, unless, with Dr. Patterson, we refer the idea to Malpighi, in 1686.

* The facts from which the above case has been prepared, are drawn from the review of the trial of Mr. Angus, and the pamphlets to which it gave rise, in the *Edinburgh Medical and Surgical Journal*, vol. v. p. 220; also a pamphlet, entitled "A vindication of the opinions delivered in evidence by the medical witnesses for the crown, on a late trial at Lancaster for murder; Liverpool, 1808." This masterly production is from the pen of Dr. Rutter, to whom I must apologize for having attributed it to another. The quotation from Dr. Hunter's Lectures, and the cases of Mr. Kendrick are taken from it. I am also indebted for some hints to the *London Medical and Physical Journal*, vol. xxi., and the *Edinburgh Annual Register*, vol. i. part 2, p. 188. I may add in this place, that a rude but instructive plate of hydatids, formed like bunches of currants, is contained in *Stalpart*, vol. i. p. 302.

[The results of the researches of Bischoff, Pouchet, Lee, and others, have so completely revolutionized professional opinion on the whole subject of corpora lutea, that the notions before promulgated have now only a historic interest. A very brief abstract of these notions, with references to the works where details can be found, seems all that is necessary.—C. R. G.]

Blundell speaks of two kinds of bodies found in the ovaries: one fabiform, the other spheroid; the former true corpora lutea, (from impregnation,) the latter, though they may result from impregnation, appear rather the consequence of disease. The former, fabiform with an asterical cavity, yellow color, as large as a pea, or larger, may, in the present state of our knowledge, be considered presumptive proof of impregnation. To even this qualified opinion, Dr. B. adds a caution to jurors not to give too much weight to this evidence when life is at stake.*

Sir E. Home supposed that impregnation was necessary to the expulsion of the ova; and Mr. Stanley doubts whether the effect of excitement can go further than to cause a rupture of the vesicle and the formation of a corpus luteum. [We now know that sexual excitement has nothing to do with this process.—C. R. G.] Montgomery was, perhaps, the first who pointed out clearly the true characteristics of the corpus luteum of impregnation, and thus taught us to distinguish it from those products of disease (degenerated Graafian vesicles, etc.) with which it had, till he wrote, been so often con-

* Blundell's Lectures, *Lancet*, N. S., vol. iv. p. 229; *Medico-Chirurgical Transactions*, vol. x. p. 263. Dr. B. divided the uterus in rabbits, and allowed it to heal, so that at the line of division the canal of the uterus became shut up; in other instances, he made an incision through the vagina. The rabbits admitted the male. In both cases the wombs were evolved; *corpora lutea* were formed, but no foetuses. (Lectures, *ibid.*, vol. iii. p. 258.)

Dr. John K. Mitchell, in his experiments on rabbits, obtained similar results, although he suggests the possibility of corpora lutea being a proof of intercourse merely. (*Chapman's Journal*, N. S., vol. v. 256.)

See also Dr. Robert Knox's papers on the history of the corpus luteum, in *Lancet*, N. S., vol. xxvi. p. 226, and *London Med. Gazette*, vol. xxxv.

founded.* [These characteristics are so fully given in the paper of Prof. Dalton, appended to this section, that it seems unnecessary to repeat them in this place.—C. R. G.]

It is hardly necessary to add, that Dr. Montgomery is a firm believer in the presence of a true corpus luteum being proof of conception.

Such was the prevailing diversity of opinion, at the time when the last edition of this work was published. I have now to add, that since that time a great change has occurred, and it would seem to be quite generally although not universally conceded that the appearance which we have been considering may occur during the period of menstruation, independent of sexual connection. I have referred below to publications on this subject, and will only quote the observations of the Edin. Med. and Surg. Journ., (vol. xli. p. 493,) in its analysis of the work of M. Raciborski. "They (the cases given) fully bear out M. Raciborski in the view he had adopted, viz., that in uniparous animals one ovum, and in multiparous animals several ova, are developed every time the animal comes into heat, and are thrown off independently altogether of the animal having access to the male; that the same occurs in women every time they menstruate; that Graafian vesicles, therefore, are to be found in the ovary whenever the animal is at the rutting season, or when women are menstruating, and that *corpora lutea* follow the bursting of the vesicles in every case. *Neither the presence of corpora lutea, nor of Graafian vesicles in the ovaries, are therefore any proof of the loss of virginity, or of a female having had access to the male. Nothing but the presence of a fecundated ovum in the uterus can prove this.*"†

* [To show the exceedingly loose way in which the name corpus luteum has been applied to any and every change in the ovaries, it is only necessary to say that Dunlop, in his notes to the second edition of Beck's Medical Jurisprudence, says he found numerous corpora lutea in the ovaries of a child of five years; when, as Montgomery well remarks, one corpus luteum is as large or larger than the whole ovary of a child of five years. Another writer speaks of true corpora lutea the size of a mustard-seed.—C. R. G.]

† Raciborski on the periodical deposit of ova, by women, and the females

[The value of the corpus luteum as a sign of pregnancy, or of recent delivery, depends upon certain peculiarities of its growth and structure, which are induced by the process of gestation taking place in the uterus. It will be necessary, therefore, in order to place these peculiarities in their true light, to describe first the structure, growth, and disappearance of the corpus luteum as connected with ordinary menstruation; and secondly, the history of the same body as connected with pregnancy. In the first case, it is called the corpus luteum of menstruation; in the second, the corpus luteum of pregnancy.]

Corpus luteum of menstruation. At each menstrual period in the human female, one of the ova contained in the Graafian vesicles of the ovary arrives at maturity and becomes ready for impregnation. At the same time the Graafian vesicle in which it is contained becomes congested, is distended by an unusual accumulation of serous fluid in its cavity, and protrudes from the surface of the ovary so as to form a rounded, bulging, tense, fluctuating prominence. At some period during the menstrual flow, probably in most instances toward its termination, the Graafian vesicle ruptures, discharges its ovum, and becomes filled with blood. Usually, this process takes place in only one Graafian vesicle at a time. Occasionally,

of the mammalia. Medico-Chirurgical Review, vol. xxxviii. p. 56. Girdwood, in Lancet, N. S., vol. xxxi. p. 825. Dr. Power, in London Med. Gaz., vol. xxxiv. pp. 109, 217. Dr. Patterson's paper, as already quoted. There is much dispute as to the originality of the idea. In England, it is claimed for Power and for Girdwood, and in France, the matter is in doubt between Gendrin and Negrier. See also a paper by Mr. Girdwood, on menstruation and its occurrence in animals. Lancet, December 7th and 14th, 1844. Bischoff's observations, in Medico-Chirurg. Review, vol. xlv. p. 208, Dr. Lee's papers. Raciborski, in Bulletin de l'Academie Royale de Médecine, vol. x. p. 114; Dr. William Davidson, in London and Edin. Monthly Med. Journal, vol. i. p. 871.

With these should be consulted, Dr. Robert Knox, in London Med. Gazette, vol. xxxiii. p. 371; Dr. Charles Bell, in Edinburgh Med. and Surg. Journal, vol. lxii. p. 320; and a review of the subject by Mr. Paget, in British and Foreign Medical Review, vol. xvii. p. 217; also, T. Wharton Jones, in London Med. Gazette, vol. xxxiv. p. 625.

however, it happens in two, and rarely in three, at the same menstrual period.

If the ovary, therefore, be examined immediately after the termination of the menstrual flow, it will be found that one of its Graafian vesicles presents, at its most prominent point, a minute lacerated opening; and that its cavity is filled with a dark-colored, soft, gelatinous, bloody coagulum. The internal surface of the Graafian vesicle is, at this time, red and vascular, but quite smooth, and the contained coagulum lies perfectly loose in its cavity, and may be easily lifted out with the handle of a scalpel. This ruptured Graafian vesicle, with its contained clot, is then gradually converted into the corpus luteum by a process which consists principally of the two following changes: First, the wall of the Graafian vesicle becomes thickened and convoluted; secondly, the clot becomes condensed and decolorized.

The hypertrophy of the wall of the Graafian vesicle commences almost immediately after its rupture. The wall is at the same time folded upon itself so as to present convolutions like those of the brain. The blood which has been effused into the cavity of the vesicle separates, like any other extravasated blood, into clot and serum; and the serum, as it exudes from the clot, is absorbed, so that the clot grows smaller and denser than at first, at the same time that it becomes paler. The rapid hypertrophy of the wall of the vesicle, however, more than compensates for the diminished size of the clot; and the corpus luteum thus produced continues its development for a period of three weeks. At the end of three weeks, it forms a softish, projecting, bean-shaped tumor, one-half to three-quarters of an inch in diameter. The central clot is tolerably firm, and partially decolorized by absorption. The convoluted wall is about one-eighth of an inch thick at the deepest part, and is of a pale, indefinite, yellowish-red hue.

After this time, the corpus luteum begins to become atrophied. Both the wall and the clot diminish in size during the fourth week, and the convoluted wall at the same time changes

its color to a bright chrome yellow, owing to a fatty deposit which takes place in its tissue; so that at the end of four weeks, the corpus luteum is not more than three-eighths of an inch in diameter, and consists of a thin, bright-yellow external wall, with a condensed, radiating, cicatrix-like, reddish, central coagulum. Subsequently, the whole structure rapidly diminishes in size, and its different parts become confounded with each other and with the neighboring ovarian tissue. It may still be found, however, by careful search at the end of six, seven, or even eight weeks. It then disappears altogether, leaving no trace by which its previous situation could be recognized.

Corpus luteum of pregnancy. If impregnation occurs, the corpus luteum is not only produced in the same manner as above described, and carried through the same course of growth during the first three weeks, but after that time it continues to be developed and increases in size, so that at the beginning of the third month it measures about seven-eighths of an inch in its long diameter. At this time the convoluted wall is of a clear yellow color, but the contained clot has become entirely pale and fibrinous in appearance. The corpus luteum remains of about the same size during the third, fourth, fifth, and sixth months; after which it slowly diminishes. The bright color of its external wall fades into a dull, indefinite, slightly yellowish hue, and the central clot becomes denser in consistency, and more and more adherent to the external wall and entangled with its convolutions, so that it is at last difficult or impossible to separate them. After delivery, it diminishes rapidly, and at the end of eight or nine weeks has become atrophied to such an extent that it is recognized only with difficulty.

The following table contains, in a brief form, the characters of the corpus luteum as belonging to the two different conditions of menstruation and pregnancy, corresponding with different periods of its development:—

CORPUS LUTEUM OF MENSTRUATION.

CORPUS LUTEUM OF PREGNANCY.

At the end of

Three weeks.—Three-quarters of an inch in diameter; central clot reddish; convoluted wall pale.

One month.—Smaller; convoluted wall bright yellow; clot still reddish.

Two months.—Reduced to the condition of an insignificant cicatrix.

Six months.—Absent.

Nine months.—Absent.

Larger; convoluted wall bright yellow; clot still reddish.

Seven-eighths of an inch in diameter; convoluted wall light yellow; clot perfectly decolorized.

Still as large as at end of second month; clot fibrinous; convoluted wall pale.

One-half an inch in diameter; central clot converted into a radiating cicatrix; external wall tolerably thick and convoluted, but without any bright yellow color.

The above appearances will serve to distinguish those cases in which pregnancy has existed, and even to determine, to some extent, the period to which pregnancy had advanced at the time of death. In order to do this, however, the observer must be practically familiar with the appearances of the corpus luteum at its different stages of growth and retrocession, and must also have the opportunity, in any case where his opinion is required, of examining both the ovaries in a perfectly fresh condition. If the corpus luteum has been cut open and exposed to the air for even a few hours, its color will have so much altered as to be no longer reliable as an indication of its age. Specimens which have been immersed in spirit are, of course, totally unfit for purposes of medico-legal examination.—J. C. D.]

II. *Of some medico-legal questions connected with the subject of delivery.*

1. *Can a woman be delivered without being conscious of it?*

This question must be answered in the negative, with, however, some exceptions. Delivery is undoubtedly, to a certain degree, independent of the will, and there may hence be certain

situations in which it will take place without the female's knowledge. The administration of narcotic substances may cause such a state; as in the instance, in 1641, of the Countess de Saint Geran, who was plunged into a deep sleep by a narcotic beverage, and during it was delivered of a boy. In the morning she awoke, and found herself bathed in blood, and the infant gone. Her relations had suborned individuals to remove it, in order to deprive her of the pecuniary advantages of her situation.* [The use of chloroform and ether, in parturition, has made us all familiar with cases of delivery in a state of unconsciousness.—C. R. G.] There is also a class of disease commonly called comatose, either with or without fever, during the operation of which delivery may take place without the female's knowledge. Hippocrates mentions a case, in a woman eight months advanced, who, on the fifth day of a typhoid fever, accompanied with coma, fell into labor, and was delivered without being conscious of it. I will only add to these, the account given by Dr. Hoyer, of Mulhausen, of a female dying in labor, who was put on the bier for interment, and while there, an infant was suddenly born.†

These examples prove that it is possible for a woman to be delivered without being conscious of it; but they at the same time show that if some extraordinary and striking cause do not intervene, the assertion is to be disbelieved. The early

* Foderé, vol. ii. p. 10, from the *Causes Célèbres*. The authors of this crime were discovered, and the child was restored to its rights, in June, 1666.

† Foderé, vol. ii. p. 11. Mr. Shaw, in his Essay on Partial Paralysis, quotes the following case from Dr. Cheyne's Essay on Apoplexy: "A woman was attacked with apoplexy, and lay hemiplegic for two days, at the end of which time she was delivered of a living child, the uterus acting in the most perfect manner, so as to expel the fœtus and secundines, and then contracting regularly, so that the flooding which might have been anticipated did not take place." (*Journal Foreign Medicine*, vol. iii. p. 20; see also *Annales d'Hygiène*, January, 1845.)

Dr. Montgomery cites several cases of delivery occurring during sleep. They are all cases of females who had had children previously, and in whom it is probable that a single pain was sufficient.

pains of pregnancy may be mistaken for those of colic;* flooding may commence during sleep; but it is hardly credible that the whole process of labor and delivery may be gone through by a healthy woman, and of sound mind, without her being aware of it. I have given below several cases that are deemed exceptions to this rule, and submit their value to my readers.†

* "While lecturing on the subject of concealment of pregnancy, in the winter of 1823-4, I received the following extraordinary case, from my friend, Mr. M'Intosh: 'I was consulted about a married lady, in the spring of 1822, who was supposed to be in a very bad state of health. She had been attended by Dr. —, and treated for an affection of the spine and dropsy. The husband of the lady grew impatient, as she became daily worse, and the abdomen more and more distended. He sent for the family surgeon, who suspected it might be pregnancy, attended with peculiar nervous irritability, and recommended that I should be called in to examine more particularly. Accordingly I waited on her, and as she sat on her chair, the nature of the case became perfectly clear, as I distinctly perceived the motion of the fœtus. This I mentioned, but the lady scouted the idea. I warned her to get baby linen and dresses ready, which she did not do, so convinced was she that she was not pregnant. In six weeks afterwards, I was suddenly called and found the patient in labor; and to demonstrate in the clearest point of view, that she had not believed that she was in the family way, no nurse was engaged, nor had anything in the shape of dress been prepared for the child. I told her she was now in labor, but she would not believe me. Upon examination, I found the os uteri open, the membranes protruding, and I distinctly felt the head of the child. The waters broke; still she would not believe. The pains increased, the head of the child was born, but she would not credit her actual situation, till she heard the child cry and it was put into her arms. Both mother and child did well; and I am engaged to attend the mother a second time in November, 1823.'" (DUNLOP.)

A somewhat similar case, but unsatisfactory in its details, in which pregnancy was not suspected, and labor-pains were probably wanting, was communicated to the Royal Medical and Chirurgical Society, May 10, 1842. (*Lancet*, May 14, 1842; *London Medical Gazette*, May 20, 1842.)

† Foderé, vol. ii. p. 10; Capuron, p. 129 Dr. Asa B. Brown, of Somerset, Niagara County, kindly transmitted to me a case which occurred to him in 1830. The female was in labor with her first child, and was seized with puerperal convulsions. It was deemed absolutely necessary to deliver her, and this was accordingly done. After her recovery, she stated to Dr. Brown that she had not any knowledge of the birth of her child.

Dr. Leonhard gives the case of a female, laboring under severe small-pox, to whom an enema was administered in consequence of constipation. She

2. *Can a woman, if alone and without assistance, prevent her child from perishing after delivery?* This is a most important question, and deserves our serious consideration, from its bearing on the subject of infanticide.

There are, undoubtedly, many cases in which an unassisted female will be unable to prevent the death of her infant. Among these may be mentioned very rapid and early delivery. Instances of this nature occur to all accoucheurs, and Foderé relates of his own wife, that a single pain brought forth the child. Such is the conformation of the pelvis, and so powerful the action of the womb, that the membranes and fœtus are expelled together. Now a female taken thus, might be unable to prevent the child from falling, and its death would ensue, if she remained unassisted.* Such a state of the

was placed on the night-stool, and remained there a quarter of an hour, when, becoming faint, she attempted to return to bed. She found herself connected with the stool by a band, and, on examination, a living child was discovered in it. She had been totally unconscious of the delivery. Her situation, however, must have been extremely low, as she died in half an hour thereafter. (*American Journal Medical Sciences*, vol. xxii. p. 499.)

Mr. Rawson, surgeon, relates the following case: He was sent for to attend a young married female, aged twenty-two years, of respectable family, short, plethoric, and healthy. She had been married ten months. Mr. Rawson had to ride three miles. The waters had been discharged, but the female informed him that she had no pains, and that the discharge of the waters was not attended with any uneasiness, not even sufficient to have awaked her, had she happened to be asleep at the time.

The os uteri was found dilated and the head presenting. The child was slowly and *unremittingly* but forcibly expelled. The female betrayed no symptoms of uneasiness whatever, and although Mr. Rawson watched her countenance, she did not exhibit the least consciousness of the child's expulsion, but expressed her surprise on seeing it. The child was strong and lively, and with the mother, did well. (*Lancet*, November 27, 1841.)

On the question considered above, the reader will find some judicious remarks by Dr. Charles Clay, (*Lancet*, June 18, 1842,) in a paper entitled "On the prevalence of almost unconscious parturition in manufacturing districts, with remarks on unconscious conception and parturition." The term *unconsciousness* is decidedly misapplied.

* Dr. Hunter mentions a case where the female was seized during the night, and the child was born before he arrived. She held herself in one posture, to prevent the child from being stifled, but although it had cried, yet on the arrival of Dr. Hunter, it was found dead, lying on its face and

parts is, however, very uncommon in a first delivery,* and this is the one that commonly is considered in cases of infanticide. If a woman has, in a previous labor, experienced so rapid a parturition, it is her duty to guard against its consequences, when a second is impending. Another possible circumstance is, that a woman may be taken in labor and delivered while passing her feces. The pressure of the uterus in the latter days of pregnancy produces an inclination of this kind, and even during labor it is very common.† But delivery in this

covered with blood. Cases of rapid delivery, the child apparently expelled by a single pain, are so common that it seems not needful to give details.

Dr. Ramsbotham (Lectures in London Medical Gazette, vol. xiii.) mentions cases of rapid delivery, and where the child was with great difficulty saved.

* Mahon, vol. ii. p. 381.

† I apprehend that it is as frequent, with cases of this description, to furnish matter for keen discussion, as to the guilt or innocence of the female, as with any that I have mentioned. An anonymous correspondent of the London Medical and Physical Journal (vol. viii. p. 448) mentions the instance of a lady, who, being attacked with diarrhœa toward the close of pregnancy, was one day seized on the night-stool with a labor-pain, and in a short time brought forth a child, before she was able to rise and give the alarm. He was immediately sent for, and rescued both mother and child from their perilous situation. He adds, that if the female had gone to the common privy, it would have been fatal to the child. But in this case, the lady was above suspicion; not so with an unmarried, seduced female. The remark of the editors of the Edinburgh Medical and Surgical Journal answers the argument to be drawn from such unexpected occurrences. "So sudden a delivery can only happen to a person who has borne children before." (Vol. xix. p. 454.) But *is it not possible* for a similar case to happen with a first child? If so, it must have its full weight in cases of infanticide. Dr. Davis gives us the following narrative:—

"Dr. Haighton, in his Lectures on Midwifery, related the case of a female at the full period of gestation, who was seized with a sudden and pressing call. Living in the country, she hastened to the garden. The pit or cess-pool of the vault was large and deep. On being seated, a violent parturient effort took place, and the child was suddenly expelled. It fell and was swallowed up by the filth below. Circumstances immediately transpired which led to the arrest of the unhappy young woman, and she was sent to York Castle to take her trial. The medical practitioner of the family in which she was servant was subpoenaed as a witness, and swore that it was perfectly possible for women in labor to distinguish, and that in fact they always did know the difference between the bearing-down pains of parturi-

position may not only be fatal to the child, but very injurious to the mother, by tearing off the umbilical cord, or inverting the uterus. Delivery may also be attended with hemorrhage and consequent debility, or with fainting or convulsions, and the female be unable to assist her offspring. These are cases which do not often occur, and when they do, they leave traces sufficiently evident — paleness, swoonings, the state of the pulse, and of the infant.* A fourth case is, when the mother, being alone, and the child having its face to the sacrum, is delivered with it downward. In this position it cannot breathe, unless it be turned; and it is well known that the slightest substance impeding respiration in a new-born infant, such, indeed, as a portion of the bedclothes, or a piece of wet linen, will destroy it.

There are also some infants so weak at birth, that they require instant and skillful aid in order to preserve their life. An unassisted mother cannot, of course, save these. It has also been suggested that the female may be suddenly delivered while in a standing posture, and the infant falling, may be found with a fractured skull. In such a case, however, we should look for a rupture of the cord, and a violent hemorrhage consequent on a forcing away of the placenta.† The cord may also be wound round the neck, and thus prevent respiration.

Lastly, the infant may perish, and the mother not be able to prevent it, when the umbilical cord has not been tied after being cut, broken, or torn. The first of these, however, is such a proof of presence of mind, that we may justly be distrustful,

tion and the calls of nature, however pressing or painful, to empty the contents of the rectum. On this most incompetent and criminally ignorant evidence, the unfortunate prisoner was found guilty of the crime of infanticide and executed." (Davis' Obstetric Medicine, p. 54.) [I have known evidence of exactly the same character as that so justly denounced by Dr. Davis as "*incompetent and criminally ignorant*," given in the New York Court of Sessions. Luckily for the accused, a man of decent knowledge was present to contradict the evidence, and the accused was not found guilty.—C. R. G.]

* Mahon, vol. ii. p. 383.

† Smith, p. 370.

if she denies being afterwards able to tie it.* It may be broken and torn, as we have already stated, by the weight of the infant, and the mother be unable to save it. There are, however, instances in which the mother and the heroine are admirably combined. The wife of a goldsmith, at Marseilles, was seized in labor while walking her room. The infant fell, and the cord broke. She took it up and called for assistance, but was not heard. Finding that it was losing blood by the cord, she compressed it with her fingers, and held it so for two hours, when she was found fainting. Her life, however, and that of the child, were both preserved.†

* The following remarkable case shows that it is possible for the division of the funis to "occur in such circumstances as to imitate precisely the effects of criminal violence inflicted after delivery." Mr. Chamberlayne, of London, relates of a patient of his who was taken so suddenly in labor that the child shot forth from her with such force as to separate the funis, which broke exactly in the right place, and as even as if it had been cut with scissors; not so much as one drop of blood followed, although the child was strong and very lively. (*London Med. and Phys. Journal*, vol. vii. p. 284.)

M. Merieu relates the case of a female walking in her room, who was suddenly seized with labor-pains. She took firm hold of the bed-post, brought herself nearer to the ground, retained the infant by means of her clothes, and placed it on the floor. The whole was the affair of an instant. On examining the child, no trace of contusion could be found, but the umbilical cord was broken at about four inches from the ring, and the end drawn out to a point. (*Quarterly Journal of Foreign Medicine and Surgery*, vol. v. p. 634.)

† Foderé, vol. ii. p. 31. The following extract, from a late writer on law, is directly applicable to the question considered above: "One thing is very remarkable, and occurs in most cases of concealment and child-murder, viz., the strength and capability for exertion evinced by women in the inferior ranks shortly after childbirth—appearances so totally different from those exhibited in the higher orders, that to persons acquainted only with cases among the latter, they would appear incredible. A mother, two or three days after delivery, walked twenty-eight miles in a single day with her child on her back. In the case of A. Macdougall, 1823, it appeared that she was sleeping in a bed with two other servants, but rose, was delivered, and returned to bed without any of them being conscious of what had occurred. Many respectable medical practitioners, judging from what they have observed among the higher ranks, would pronounce such facts impossible, but they occur so frequently among the laboring classes as to form a point worthy of knowledge in criminal jurisprudence." (*Alison's Principles of Criminal Law of Scotland*, p. 161.)

These are the exceptions to the general doctrine that may be laid down in such cases, viz.: *That every woman is more or less acquainted with the time when she is to be in labor, and that it is her duty never to be so far alone as to render assistance accidental.* Even during labor, the vast majority of females make known their situation by their pains; and they will only be suppressed by those in whom shame and the fear of dishonor are predominant passions. And it is a question of moment whether we should feel that sympathy for this sense of shame which some authors, and particularly Dr. William Hunter, have inculcated in their writings. It is, at all events, misplaced as to time; and the female who destroys a human being, and her own offspring, to escape its effects, should have felt its influence at an earlier period. "To the moral and political philosopher, Dr. Hunter may appear to have exalted *the sense of shame into the principle of virtue*, and to have mistaken the great end of penal law, which is not vengeance, but the prevention of crimes."* It is not necessary, however, to enlarge on this point. Circumstantial evidence generally guides in the preliminary decision of it, when accusations of infanticide are made, and great stress is properly laid, in disputed cases, on the incidents of time and place, and of situation and character.†

* Percival's Medical Ethics, p. 84.

† On this question, see Foderé, vol. ii. p. 25; Capuron, p. 131; Smith, pp. 365 to 377; Mahon, vol. iii. p. 381, etc.; Davis, Ryan, etc. Cases of sudden delivery are noticed by most obstetrical writers, and in many periodicals. (London Medical Repository, vol. xxi. p. 287.)

These cases (and the records of medicine furnish us with many similar examples) corroborate the conceded doctrine, that the child may be born so rapidly that the mother, alone and unassisted, cannot preserve its life. But its bearing on infanticide is another matter. Guilt excites suspicion, and when a female, suspected of being pregnant, denies the charge, and when she is seized in labor, retires away from observation, asks no assistance, and returns to her accustomed avocations without confession, and then the child is found dead, she at least has been guilty of acts of *omission*, for which she should be punished.

The difficulty is mainly in the law. I consider it a moral impossibility to hang a female for the crime of infanticide. No jury can be found in

PART II.

Delivery, as it respects the child, may become a subject of importance both in civil and criminal cases, and instances are frequently occurring in which the utility of properly understanding its phenomena is clearly manifested. The arrangement proposed was to notice—

I. *The signs of the death of the child before or during delivery.*

This subject may be agitated in civil cases, where the succession to an inheritance is questioned, or in criminal ones, as when, a pregnant woman is maltreated, and her offspring is supposed to have died from the injury.* It is, however, of the greatest importance from its bearing on the two great medico-legal subjects of Abortion and Infanticide, and I shall notice it at this time as an introduction to them.

During pregnancy, the life of the foetus is inferred from the good health of the mother, the progressive increase of the abdomen in size, and the motion of the foetus being experienced.

These form strong presumptive evidence, but there are exceptions to all of them, [and the detection of the foetal heart sound by auscultation is the only certain proof that the child is living.—C. R. G.] Healthy females may bring forth dead children, while sickly ones have produced living children. The increase of the abdomen also may be owing to a mole, or to dropsy, while the irregularities that are experienced respect-

England or this country to convict, unless under the most self-evident and atrocious circumstances. But the concealment of pregnancy, and particularly of birth, should be signally marked by our law-makers.

* As in the following case given by Dr. Kennedy, (p. 208.) A woman, in the seventh month, was sent to the Lying-in Hospital, Dublin, to be examined whether her child was, as she asserted, killed in the womb by certain blows and injuries inflicted upon her by a female with whom she had a scuffle. She described very accurately all the reputed proofs of the child's death as being present. When, however, the stethoscope was applied, the foetal heart's action was distinctly audible; and the announcement of the child's being alive dissipated all her hopes of legal vengeance, as she appeared to calculate upon hanging her antagonist at least.

ing the motion of the foetus are sufficient to render it very uncertain. In many cases the mother has imagined that she felt life to the moment of the delivery of the dead child; while, on the contrary, I need hardly add, no motion, or a very slight one, has been experienced for a considerable time previous to the most favorable labors.

The same uncertainty attends the proofs of life during delivery. The limpidity of the waters, the regularity of the pains, and their gradual increase in strength, the pulsation of the heart and umbilical cord of the foetus, or, if it is not practicable to ascertain these last, the pulsation at the anterior fontanelle, and the swelling, tension, and elasticity of the presenting part, together form an incontestable chain of evidence in favor of its presence. Separately, however, they are susceptible of doubt. The two first are uncertain; it may be impracticable to ascertain the third; the occurrence of the fourth is denied by some authors, and it may be wanting in children who are apoplectic or feeble, and who, notwithstanding, have recovered after birth.* The last is a very favorable sign, but death may ensue during delivery, and the congestion induced by the detention in utero preserve it.

In investigating, on the other hand, the signs of the death of the foetus, we must refer, in the first place, to the causes that may have induced it. As to the mother, these are numerous. The unhealthiness of her habitation, the mode of dress, the want of food, or improper use of it, violent exercise, too great labor, violent passions of the mind, either of the exciting or depressing kind, venereal excess, intemperance, diseases, such as hemorrhage or convulsions, contagious disorders, such as syphilis or small-pox, falls, wounds, and accidents generally, any inordinate evacuation, and, indeed, all the causes of abortion, as enumerated by authors, may have produced the death of the infant.

The child may also be destroyed during labor, from that

* It can, of course, only be ascertained when there is a natural presentation, and hence is not always applicable.

process being long protracted, from its being so difficult as to require instruments, or complicated with syncope, convulsions, or hemorrhage, from a morbid state of the placenta, or a twisting of the umbilical cord around its neck.

It is hardly necessary to add, that fatal as each of these causes have respectively been at various times, yet children have often survived in spite of them.

The signs experienced during pregnancy, of the death of the fœtus, are a want of motion in the child; the womb feels as if it contained a dead weight, which follows the direction of the body as it moves to one side or the other; the navel is less prominent, the milk recedes, and the breasts become flaccid; the mother feels a sense of lassitude and coldness, accompanied with headache and nausea.* As equivocal signs, may be added a paleness of the face; the eyelids having a livid circle around them; the presence of a slow fever and melancholy, and a fetid breath.

These, if all present, form a strong presumption in favor of the destruction of the offspring. Individually, however, they are liable to be mistaken or confounded. Subsidence of the tumor is one of the natural changes that in all cases precede labor. The breasts, also, do not enlarge in some until advanced pregnancy, and of course we cannot draw an inference from their state. But particularly as to the motion of the child may error arise. The want of it cannot be regarded as a certain proof of death, and the mother may mistake, and indeed often has mistaken, action of the abdominal muscles, spasm of the uterus, and even hysteria, for it.†

Again, the fœtus may die, and be retained in the uterus

* Mr. Travers, in his *Further Inquiry Concerning Constitutional Irritation*, says that "if the child dies at the seventh month—from the period of its death, though the woman be not delivered for days after, the breasts are furnished in the same plentitude as if the child was born alive. This is directly contrary to what writers on midwifery have asserted, viz., that the falling of the breasts and the failure of the milk are never-failing signs of the child's death." (*British and Foreign Med. Review*, vol. ii. p. 8.)

† Kennedy, p. 210.

without exciting any general or local disturbance. The health will be good, and there is nothing on which to found a suspicion, except the suspension of the ordinary proofs of progressive pregnancy.*

Under such circumstances, the importance of AUSCULTATION in proving the life of the foetus, is strikingly shown. If we can detect by it a distinct foetal heart, with or without the placental sound, there can be no doubt. It is to be regretted that the reverse is not so certain. It requires familiarity with the stethoscope, frequent examination during the child's life, and attention to the various doubtful circumstances to which we have alluded in a previous chapter, to authorize a decisive opinion. The cases, however, are multiplying, where those who are acquainted practically with auscultation have predicted correctly; and in proof of this, I need only refer to the work of Dr. Kennedy which I have repeatedly quoted. I will only add, that in some cases the placental *souffle* continues after the foetus is dead, but it is described to be more abrupt, of shorter continuance, wanting its protracted terminating whiz, and generally confined to a circumscribed spot.

If actually dead, and long detained in the uterus, putrefaction takes place, the membranes lose their vitality, and blackish fetid discharges shortly occur. This is also a rule subject to exceptions. We have seen, when noticing the subject of superfœtation, that the dead ovum may remain for months without exhibiting any marks of putrefaction. It is much rarer to notice this when the uterus contains only a single foetus.†

* Ramsbotham. (Medico-Chirurgical Review, vol. xxi. p. 309.)

† The length of time during which a dead foetus may be retained in utero is uncertain; the usual period is from one to three weeks. Dr. Blundell says: "When the ovum dies in the earlier months, it may be retained till the close of pregnancy." (Medico-Chirurgical Review, vol. xxi. p. 343.)

Dr. Porter, of New London, relates a case of this nature, where at the fifth month the abdomen gradually diminished, and at the eighth, was scarcely more prominent than ordinary. There could, however, be perceived a foreign body in the uterus on examination. The breasts were distended and there was an occasional oozing of milk; but this disappeared

The signs during the progress of delivery, of the death of the fœtus, are similar in some respects to those already mentioned, such as the absence of motion and fetid discharges. Writers have also mentioned the state of the presenting part. When the fœtus is dead, it has an œdematous or emphysematous feel; the skin is soft and easily torn, and the bones of the cranium lose their natural connection, and vacillate on one another. The umbilical cord also, if it can be examined, is found without pulsation, and in some advanced cases withered and rotten.

Although these are proofs, yet the practitioner should not hastily pronounce on them. The fetid discharges or odor may be owing to the premature passage of the meconium, or to the mixture of a small quantity of blood with the uterine discharge. The former of these was at one time supposed to indicate death with certainty; but it is now ascertained, that although it portends danger, yet children have, notwithstanding, been born strong and healthy.* The state of the skin

about the ninth month, and the breasts diminished. The general health was good. At the usual period of utero-gestation, without pain or much effort, the membranes protruded, and were finally expelled with cramps and severe hemorrhage. Enveloped in the broken membranes was a fœtus of about five months, and free from any marks of decomposition. The placenta resembled in form and consistence a sarcomatous tumor. *American Journal of Med. Sciences*, vol. xvii. p. 347. A somewhat similar case, by Dr. Galbiati, of Naples, is given in the same journal, vol. xviii. p. 523; and a precisely similar one by Dr. Hays, of a fœtus of five months, retained until the full time, and expelled entirely free of putrefaction, *ibid.*, vol. xx. p. 535; while two cases of fœtuses putrefying in utero, by Dr. Vassal, of Paris, are related in *ibid.*, vol. xvii. p. 528.

* "We may, however, in general conclude, when the meconium does come away in a natural presentation, that the state of the child is not without danger; and for many years, I never saw a child, presenting with the head, born living, when the meconium had come away more than seven hours before its birth. But at length I met with a case, in which the meconium was discharged for more than thirty hours; at the end of which time, though the woman was delivered with the forceps, the child was born healthy and strong. And since that time, I have had many equally convincing proofs that the coming away of the meconium is a very doubtful sign of the death or dangerous state of the infant, whatever may be the presentation." (Dennan, p. 395;) see also Belloc, p. 91; Capuron, p. 247; Burns' *Mid.*, note to chapter vii.

and bones may be the effect of weakness, as also the looseness of the epidermis. Even its livid color is not infallible. Vicq. D'Azyr mentions a case that occurred at Breslau, where the arm of the infant protruded from the uterus, and was so cold and livid that it was deemed gangrenous, and was amputated. Notwithstanding this, the infant was born alive three days after.*

Dr. Blundell, a very eminent man in his particular branch of medicine, after reviewing the various signs, conceives that none should be relied on except the three following: *The cuticle coming away from the head in large flakes*, desquamation, as from dead bodies in the lecture-room. This is very strong presumptive proof of death, although even not demonstrative, for cases have been related, and among the rest one by Dr. Orme, in which the cuticle had separated, in consequence of cutaneous disease, and the child was, notwithstanding, alive.† “So rare, however,” he adds, “are these cases, that I should feel disposed in practice to look upon them as of no account, were it not that human life is at stake.” *The bones of the cranium being detached from each other, and floating, as it were, in the mollified brain.* Let it be recollected that mere displacement and solution of union is insufficient. They must be detached and afloat. Thirdly, *the umbilical cord*, if it can be felt, cold, brown, flaccid, and destitute of pulsation for half an hour or an hour. This last discrim-

* Foderé, vol. ii. p. 91. Baudelocque (vol. iii. p. 161) relates a case, where the woman was two days in labor; the scalp of the child was loose, pendant, and in a manner rotten; the cuticle and hair came away, and adhered to the finger. No motion had been felt for twenty-four hours; and yet on delivery with the forceps, the child was living and healthy, except a superficial gangrenous spot on the crown of the head, which soon healed. A case strongly indicative of the foetus being in a putrid state previous to birth, but where it was born alive and survived, is related by Prof. Naegele, *Lancet*, N. S., vol. ii. p. 70.

† Dr. Metcalf (*American Journal Med. Sciences*, N. S., vol. vi. p. 332) mentions a case where the child was evidently alive twelve hours before birth, and yet the cuticle was off in many places on the body, and one arm was almost entirely denuded.

inates between the temporary loss of pulsation occurring in a recent descent.*

We must recollect also, that the pressure occasioned by a long and tedious delivery may extinguish life. The proofs now enumerated, indicative of putrefaction, will, in that case, generally be wanting. The motion of the foetus, which has lately been felt, will suddenly cease, and tumefaction and redness of the presenting part will be observed. Ecchymosis sometimes occurs, owing to a rupture of the vessels and an effusion of blood into the adjacent cellular tissue.

The application of the stethoscope will tend to diminish the number of doubtful cases. It is evidently as valuable here as in any inquiry in which we have before recommended it.†

If the medical examiner be called immediately after birth, he can have no difficulty in deciding on this question. The body will be found to have lost its firmness and consistence; the flesh will be soft, and the muscles easily torn; the skin will exhibit marks of putrefaction, and will be of a purplish or brownish-red color; the epidermis is raised, and may be easily separated; a bloody serum is often effused in the cellular tissue and beneath the skin, especially about the cranium, and sometimes a similar effusion is observed in the cavities of the chest and abdomen, and their viscera are of a deep reddish hue. The umbilical cord is livid, soft, and easily torn. The cranium and thorax are flattened, and the membranes uniting the bones of the head are much relaxed, so that the bones are somewhat disunited; the brain, also, is almost fluid, and has a fetid odor.

It will readily occur, from a review of the remarks contained in this section, that the fact of the death of the foetus, before or during delivery, can be ascertained with considerable facility, if the practitioner be called at the proper season.

* Blundell's Lectures on Midwifery, *Lancet*, N. S., vol. ii. p. 161. A striking instance by Mr. Hare, showing the uncertainty of the signs most relied on, is quoted from the *Provincial Med. Journal* in *American Journal Medical Sciences*, N. S., vol. v. p. 481.

† See Dr. Kennedy's work, pp. 242 to 258.

Unfortunately, however, in most cases which come before a court of justice, the delivery has been secret, and a greater or less space of time has elapsed since its occurrence. The infant is found dead. The proofs which we have now enumerated are inapplicable or inconclusive, and a further investigation is required to ascertain the truth. We hence come to the examination of the question of INFANTICIDE.*

II. *Of the signs of the maturity or immaturity of the child.*

A knowledge of these is no less necessary than of those noticed in the preceding section. The medical examiner, in all cases, should be well acquainted with the indications that mark the various epochs of foetal life, as well as those which prove its arrival at maturity. A sketch, therefore, of the gradual development of the foetus, from the area of its first formation, will be proper in this place. And I will premise that the following summary is drawn from the observations of Aristotle, Hippocrates, Riolan, Haller, Roederer, Meckel, Burton, Baudelocque, William Hunter, Burns, Chaussier, Beclard, Capuron, Clarke, Merriman, Sömmering, Tiedemann, and Devergie. There are some recent authorities, which I regret that I have not been able to examine; and I would also remark, that in many cases the observations are to be taken as means deduced from extremes, and they are, therefore, liable to some variation.

From the time of the first evidence of impregnation to the fifteenth day, the product of conception appears only as a gelatinous, semi-transparent, flocculent mass, of a grayish color, liquefying promptly. [As to the size and weight of the embryo, instead of cumbering these pages with conflicting statements, many merely absurd, as where Granville states

* The authorities on this section, which deserve attention, are Denman, pp. 391 to 399; Capuron, p. 234, etc.; Hutchinson, p. 17; Foderé, vol. ii. p. 81; Smith, p. 315; Belloc, p. 91. Dr. Jaeger's Dissertation on this subject (in Schlegel, vol. v. p. 23) may be consulted with great advantage. Several cases are related by him where he examined infants dead before birth, with a direct view to the question now noticed.

the length of the embryo, at two weeks, at one inch, I have given in the text the measurements of Coste, taken in part from his great work, *Histoire du Developpement des Corps Organisés*, and in part from his pupil, Caseau. In notes will be found the sources of the contradictory statements, from which I have relieved the text. Coste's earliest embryo was, he believed, from fifteen to eighteen days; it measured two lines and a half. The next was of from twenty-five to twenty-eight days; it measured just five lines. Caseau, who acknowledged his obligations to Coste, and who, no doubt, gives his opinions, says the embryo of five weeks is about eight lines long, and weighs fifteen grains. At seven weeks the embryo is nearly an inch long. At ten weeks from one and a half to two and a half inches, and weighs from an ounce to an ounce and a half.

At the end of the third month it measures about five inches, and weighs three or four ounces.

At the fourth month the body is six or eight inches long; the weight seven or eight ounces.

At five months, length eight to ten inches; weight, ten or eleven ounces.

At six months, length eleven to thirteen inches; weight about one pound.—C. R. G.]*

Development of the different parts. At six or seven weeks the general form of the principal organs can be observed. The extremities begin to bud out, the cord is recognized, and at seven weeks ossific points are noted in the clavicle and lower jaw. The organs of generation are visible, and the difference of sex can sometimes be made out. At the third

* [Med.-Chir. Review, vol. viii. p. 575; Gooch, Midwifery, p. 88; Granville on Abortion, pp. 10 and 11; Velpeau, Embryologie, p. 50; Edin. Med. and Surg. Journal, vol. xli. p. 407; Ryan's Midwifery, p. 67. See particularly an able paper by Dr. Allen Thompson, Edin. Med. and Surg. Journal, vol. lii. p. 119; American Journal Med. Sciences, vol. xiv. p. 402; Briandt Med. Legale, p. 128; Dunglison's Phys., vol. i. p. 356; see article *Anatomy*, in Supplement to Encyclopedia Britannica, vol. i. p. 256; Lecieux, p. 12. See particularly Grey's Med. Journ., for tables, London edition, pp. 102, 103, 105, and 107.—C. R. G.]

month, the nose and mouth are fully formed, the other features distinct, the eyelids adhere, the ball of the eye seen through the lids, the genitals are distinct, the penis and clitoris are relatively very large, the nymphæ are projecting, and the labia very thick. At the fourth month, the external parts all develop themselves, with the exception of the hair and nails. The great relative proportion of the fluid of the membranes disappears, and the fœtus nearly fills the cavity of the uterus.* During the fifth month, the motions of the fœtus are felt by the mother. The brain is pulpy, and is *destitute of convolutions or furrows*. The external ear is completed about this time, although its shape, which is like that of a gently depressed circle, differs from that of the ear after birth. The nails are distinct. The hair begins to appear.

In the sixth month, we begin to find some traces of fat under the integuments, where previously nothing but a mass of gelatine had been observed. The head also, which before had been proportionably large, becomes smaller in comparison with the body. It is now, however, large and soft, and the fontanelles are much expanded. The brain acquires rather

* This is the period which demanded investigation in the recent trial for the murder of Sarah M. Cornell. "The alleged date of the conception was the thirtieth of August; the last appearances of the menses on the twenty-first of August, and death took place on the twentieth of December. The fœtus weighed five ounces, and measured eight inches in length. The question arising upon these facts was, whether it was most probable that a fœtus of three months and twenty days should have attained the above size and weight, or that menstruation could continue after conception had taken place." (Boston Medical and Surgical Journal, vol. viii. p. 340.)

I have already noticed the latter in its bearing on this subject, and need only add, that if it be deemed most probable, it would go to prove that the conception did not take place at the time alleged, and thus tend to relieve the prisoner from the imputation of paternity. In addition to the circumstances mentioned, it must be added, that neither nails nor hair were found on the fœtus.

On the trial, Dr. Parsons stated that he had examined twelve authors on this subject, and that the average deduced from them was, that at three months the length of the fœtus was between three to four inches, at four months five inches, and at five months eight inches. Beclard was the only one who gives eight inches at four months.

more consistence, but is still easily dissolved; and the pia mater seems only to lie over its surface, being separated with great facility. The skin is very fine, pliant, thin, and of a bright-red color. In males, the scrotum is slightly developed, and the testicles are still in the abdomen. In females, the vulva is projecting, and the labia separated by the projection of the clitoris. The hair on the head is very thinly dispersed, short, and of a white and silvery color; the eyelids are closed; the hair on the eyebrows and eyelashes but thinly scattered, and the pupil is closed by a membrane. The lungs are very small and compact. The heart is large, and the liver very large, and situated centrally near the umbilicus; the gall-bladder contains only a small quantity of a nearly colorless fluid; and the meconium is small in quantity, and is found only in a part of the large intestines. The bladder is hard and pyriform, and has a very small cavity, *the middle of which is at the abdominal extremity of the sternum.**

At the seventh month, all the parts, both external and internal, are still more developed. The skin becomes more dense, and is covered with a sebaceous matter, so as to form a whitish, unctuous layer. The eyelids are no longer united, and the membrana pupillaris becomes atrophied so as to form the pupil.† The cerebral pulp becomes more consistent, and

* In the quarterly reports of the New-Town Dispensary, (Edinburgh,) there are two cases mentioned, which it will be proper to add in this place. A child, supposed to be advanced six and a half months, lived eleven days. On the fifth day after its birth it weighed two pounds nine ounces and three-quarters avoirdupois. Another, probably at the sixth month, lived fourteen hours; weighed two pounds four and a half ounces English, and measured thirteen and seven-eighths inches. (Edinburgh Medical and Surgical Journal, vol. xii. pp. 249, 526.)

† There is considerable diversity of opinion concerning the constancy of this phenomenon. Cloquet says that in the fœtus of the ninth month the little arterial circle of the iris, which is formed after the rupture of the membrana pupillaris, and at the cost of its vessels, is seen placed on the very edge of the pupil; and often, even in the new-born child, some of its vessels still advance beyond the circumference of this opening. He has seen it ruptured even at the sixth month, and adds, that it is seldom found entire at the eighth. On only one occasion, did he discover it in a full-grown fœtus, and then it was broken in the middle. (Quarterly Journal of

its surface is a little furrowed and adheres somewhat to the meninges. The meconium increases in quantity, the hair on the head is longer and takes a deeper hue. The nails acquire more firmness. Length, twelve to fourteen inches; weight, from two to four pounds. *The middle of the body is nearer to the sternum than to the navel.*

At the eighth month, the skin has acquired more density, and becomes whiter; it is covered with very fine and short hairs, and its sebaceous covering is more apparent. The nails are firmer; the hair of the head longer and more colored. The breasts are often projecting, and a lactiform fluid may be pressed from them. The testicles in males are engaged in the abdominal ring. In females, the vagina is covered with a whitish mucus. The grooves in the cerebral substances gradually become more marked, and the spinal marrow, pons varolii, and medulla oblongata, acquire a remarkable consistence, and even firmness. The lungs are of a reddish color; the liver preserves nearly its former relative size, but it is more remote from the navel; the fluid in the gall-bladder is of a yellowish color, and has a bitter taste. The weight at this time is from three to four, and sometimes even five pounds; length, sixteen or eighteen inches. *The middle of the length is nearer to the navel than to the sternum.*

At the ninth month, ossification is more complete, the head is large, but it has a considerable degree of firmness. The bones of the cranium, although movable, touch each other with their membranous margins; the fontanelles are smaller, the hair is longer, thicker, and of a deeper color, and the nails become more solid and prolonged to the extremity of the

Foreign Medicine and Surgery, vol. i. p. 64; and Eclectic Repertory, vol. ix. p. 190.)

Dr. Jacob, of Dublin, on the other hand, rejects the above opinion, as he has usually found it present in most new-born infants. He says the vessels are at first obliterated, and then the membrane is absorbed. Professor Tiedemann is said to have repeated the experiments of Dr. Jacob, (injecting the membrana pupillaris at the full time,) and confirmed their accuracy. (Anderson's Journal, vol. i. p. 110; American Journal of Medical Science, vol. i. p. 192.)

fingers. The convolutions on the surface of the brain are more numerous, the cineritious portions begin to be distinguished by their color; and although the lobes which compose the cerebrum retain their former softness, yet the cerebellum and the basis of the cerebrum have acquired a remarkable consistence. The head measures, longitudinally, from the forehead to the occiput, four inches to four inches and a quarter, and between the parietal protuberances, from three and a half to four inches. Of 60 male and 60 female infants, born at the full time, whose heads were measured by Dr. Clarke, the circumference passing through the occipital process and the middle of the brow was, on an average, 13·8 inches, while the arch from ear to ear, over the crown, was 7·32 inches.* The abdomen is large and round; the lungs are redder and more voluminous; the canalis arteriosus is large, and its coats are thicker and denser than formerly. The meconium fills nearly the whole of the intestines, and the bladder contains urine. In fact, the digestive apparatus, the heart and the lungs, are in a state fit to commence extra-uterine life. The length varies from nineteen to twenty inches or more, *the middle of which is at the navel, or a very little below.*†

* Craigie's Anatomy, p. 76. One measured fifteen inches in circumference, and one eight and a half inches from ear to ear; but none were under twelve inches in the one direction, or six and a quarter inches in the other.

† Hutchinson, pp. 6 to 14; Capuron, pp. 165 to 173; Foderé, vol. ii. p. 149; Burns, pp. 114 to 118. Devergie puts the length at from sixteen to eighteen inches, and the mean weight at six and a quarter pounds; Lecieux, the length at eighteen inches.

We owe our knowledge of the test for ascertaining the age of the foetus by its length to Chaussier. According to his researches, it was considered proven, that at the age of nine months the insertion of the umbilical cord was exactly at the *middle point between the summit of the head and the soles of the feet*, while anteriorly to that period, the insertion of the cord approaches the chest, in proportion as the foetus is younger. Several observers have expressed their assent to the correctness of this statement, but of late its accuracy has been questioned. The following is a quotation from Mende, (Cummin's Lectures, in London Med. Gazette, vol. xix. p. 68 :) "The middle point by no means corresponds to the same part of the body in foetuses of the same age, a fact for which we might be prepared by considering that the several sizes of the foetus depend now on its large head and neck, now

The observations made by Tiedemann, Serres, and the Wenzels, on the brain of the fœtus, may most conveniently be arranged together in this place. At the fourth week, the mass which corresponds to the head in the embryo is quite transparent, and contains a limpid fluid. At the seventh and eighth weeks, the form and disposition of the brain and spinal cord can be distinguished, and the dura mater is also observed adhering to the inner surface of the skull. During the third month, the tubercula quadrigemina, the optic thalami and corpora striata are developed; and in the eleventh week the cerebellum and the hemispheres are recognized. At the fourth month, the tuber annulare and the pituitary gland are observed. The corpus callosum, in the sixth month, is only half

on the trunk, and again on the magnitude of the limbs. This I have verified by numerous measurements, taken with great care and pains, and the conclusion I have arrived at is, that the directions laid down by Chaussier are uncertain for practical purposes, and more particularly for those of the practical jurist."

Again, Professor Moreau, of Paris, carefully measured five hundred children born at La Maternité, and found, out of this number, four only in whom the umbilical cord was inserted exactly in the centre of the whole length of the body. In the remainder, the point of insertion fell, on an average, from eight to ten lines below the middle. In a few children, born about the sixth or eighth month, the cord was inserted into the middle point. (*Lancet*, vol. xxi. p. 711, from *Lancette Française*; see also Dr. Churchill, in *Edinburgh Med. and Surg. Journal*, vol. l. p. 291.)

The following are some additional results noticed by Mr. Taylor, Lecturer on Medical Jurisprudence at Guy's Hospital, and Dr. Geoghegan, Professor of Medical Jurisprudence in the Royal College of Surgeons in Ireland:—

Case.	Whole length.	Attachment of the Umbilical Cord.
1.	18½	a quarter of an inch below the centre.
2.	20	half an inch " "
3.	17½	half an inch nearly " "
4.	16½	half an inch " "
5.	19	half an inch " "
6.	17	a little below the centre.
7.	18	exactly at the centre.
8.	17	exactly at the centre.
9.	20¾	a little below.
10.	19½	a little below.
11.	18¾	exactly at the centre.

(*Guy's Hospital Reports*, vol. vii. p. 69.)

as long as the hemispheres of the brain. The choroid plexus is formed in the seventh month, and the corpora olivaria do not protrude till between the sixth and seventh, but the corpora pyramidalia are fully formed a month sooner; and in both the protrusion is owing to the development of cineritious matter. It is not till near the termination of pregnancy that the cineritious substance is formed in the spine, or even very manifestly in the convolutions of the brain.*

The Wenzels found the following proportionate increase of the brain in their investigations: In an embryo of five months they found the brain to weigh 720 grains, of which the cerebrum weighed 683 grains, and the cerebellum 37; being in the proportion of $18\frac{17}{17}$ to 1. At eight months, the respective numbers were 4960, 4610, 350, or as $13\frac{6}{5}$ to 1. At the full time, 6150, 5700, 450, or as $12\frac{2}{3}$ to one.†

The observations of M. Beclard, on the skeleton, may also be stated, as its increase is more regular than that of the soft parts, and its appearance may afford important evidence in cases which vary from the ordinary state.

“After two months have elapsed from the period of conception, the skeleton is about four inches and three lines in length, that of the spine being two inches; at three months, the former is six inches, and the proportion of the spine as two and two-thirds to six; at four months and a half, it is nine inches, and the spine four; at six months, twelve inches, and the spine five; at seven and a half months, fifteen inches, the spine six and one-third; at nine months, or the period of birth, it is ordinarily from sixteen to twenty inches in length, or at the medium of eighteen inches; and the spine is in the proportion of seven and three-fourths to eighteen, to the whole length of the body. These calculations were made from observations on about fifty fetuses, at each of the periods above indicated.

* Edinburgh Medical and Surgical Journal, vol. xix. p. 456; vol. xxiii. p. 81, etc.

† Lawrence's Lectures on Physiology, p. 170; see also Dr. Copland's Notes to Richerand's Physiology, Appendix, p. 56, “On the formation of the spinal marrow and brain.”

"Each vertebra, consisting originally of a section of a solid cylinder, and a ring furnished with several apophyses, is, in general, formed by three primitive points of ossification; the one anterior, which, by its development, forms the body or solid part of the bone; and two lateral ones, which constitute the apophyses, and which, uniting together with the former, constitute the annular structure.

"Besides these, each vertebra is completed by several secondary points of osseous development.

"At about the sixth month of intra-uterine life, two points of ossification are found in the second cervical vertebra, one situated above the other. Toward the seventh month, the superior point, which answers to the odontoid process, is larger than the inferior, which relates to the body of the bone. At about the eighth month, the transverse processes have begun to ossify in the first of the lumbar vertebræ. At the time of birth, ossification has commenced in the body of the first cervical vertebra, and also in the first bone of the coccyx. At this age the body of the fourth lumbar vertebra, which is the most voluminous, is three lines in depth and six in breadth. At the same period, the lateral portions of the six superior dorsal vertebræ begin to unite together so as to form a ring posteriorly to the bodies of these bones. The lateral arch of the second, which is the largest, forms a chord of seven or eight lines."*

The weight of the foetus at the full term of utero-gestation has been the subject of numerous observations, and as a preliminary remark, it must be noticed that this differs according to the conformation and habits of the parent, and sex of the child, [and often without our being able to assign or even suggest any cause.—C. R. G.] Healthy females residing in the country, or engaged in active occupations, have generally the largest children. Male children, also, generally weigh more than female ones. The diversity extends also, as we shall see, to various countries.

* Hutchinson on Infanticide, pp. 12, 13, 14.

In Germany, Roederer found the weight, in one hundred and thirteen cases, to vary from seven to eight pounds, and he lays it down as a rule, drawn from his observations, that it is rarely less than six pounds.* Dr. Hunter states that Dr. Macauley examined the bodies of several thousand new-born and perfect children at the British Lying-in Hospital, and found that the weight of the smallest was about four pounds, and the largest eleven pounds, but by far the greater proportion was from five to eight pounds.† Dr. Joseph Clarke's inquiries furnished similar results. The greater proportion of both sexes, according to him, weighed seven pounds; there were more males than females found above, and more females than males below that standard: thus out of sixty males and sixty females, thirty-two of the former and twenty-five of the latter weighed seven pounds, and there were fourteen females but only six males who weighed six pounds. On the other hand, there were sixteen males but only eight females who weighed eight pounds. Taking then the average weight of both sexes, it will be found that twelve males are as heavy as thirteen females. The exact average weight of male children, according to Dr. Clarke, was seven pounds five ounces and seven drachms, and that of female, six pounds eleven ounces and six drachms.‡

Dr. Clark, of Dublin, found the weight to vary from four to eleven pounds. Dr. Merriman states, in his Lectures, that he delivered one which weighed fourteen pounds, (it was born

* Bosc de *Diagnosi vitæ fœtus et neogeniti*, in Schlegel, vol. iii. p. 23. I have selected this as the most accurate account of Roederer's observations, as there is a discrepancy among the writers that notice him. Foderé (vol. ii. p. 153) says the weight, according to his table, is from six to seven and a half pounds, and Hutchinson (p. 15) from five to six and a half.

† Hunter's *Anatomy of the Human Gravid Uterus*, p. 68.

‡ Phil. Transactions, vol. lxxvi. p. 349. Dr. Clarke also mentions the following observations as made by Roederer. The placenta of a male was found to weigh, on an average, one pound two ounces and a half, while that of a female weighs half an ounce less. Female children, who at the full time weigh under five pounds, rarely live; and few males, who weigh even five pounds, thrive. They are generally feeble in their actions, and die in a short time.

dead,) and Dr. Croft delivered one alive, weighing fifteen pounds.*

In France the weight seems to be less than in England. Of 1541 examined by Camus, the greatest weight was nine pounds, and of this there were sixteen instances; the ordinary, from five to seven, and the average, six pounds and about a quarter; there were thirty-one instances in which it was as low as three pounds. Baudelocque, however, states that he has seen two of nine pounds and three-quarters, one of twelve, and another of thirteen. The last, he adds, had several teeth, well advanced, and ready to cut. On the other hand, he had delivered some at the full time who weighed but five and four and a half pounds, and several, indeed, only three pounds and three-quarters. These were more common than those of nine pounds, and grew to as great a size after birth.† Subsequent observations on twenty thousand children, at the Hospice de la Maternité at Paris, show that the average weight of the foetus, at the full time, is there about six and one-quarter pounds. The extremes varied from ten and a half pounds, which was the highest, to three pounds.‡ Capuron mentions

* Hutchinson, p. 15. At a meeting of the Westminster Medical Society, in London, held December, 1830, a Mr. Jewell related a case in which the weight of the child was twenty pounds. He stated it on the "authority of an extremely intelligent midwife, of whose veracity no doubt could be entertained." (*Lancet*, N. S., vol. vii. p. 410.) Dr. Ramsbotham (the father) delivered a child weighing sixteen and a half pounds avoirdupois. (*London Med. Gazette*, vol. xiii. p. 551.)

Mr. Owens delivered one at a public lying-in charity in England weighing seventeen pounds twelve ounces, and measuring twenty-four inches. It was born dead. (*Lancet*, N. S., vol. xxiii. p. 477.) Dr. White had a case of a female child, in 1814, at Preston, weighing fifteen pounds, and the length twenty-four and a quarter inches. (*London Med. Gazette*, vol. xxxiv. p. 48.)

† Baudelocque's *Midwifery*, vol. i. p. 256.

‡ Lecieux, *Considerations sur l'Infanticide*, pp. 9, 12. The following table, taken from Burns' *Midwifery*, edition of 1823, is somewhat different in its results from what is given in the text, and I do not know how to reconcile them, unless to suppose that they were taken at a later period. It purports to be the respective weights of 7077 new-born children, accurately ascertained at the Hospice de la Maternité:—

that he has seen two instances where the children weighed twelve pounds.*

At the Lying-in Hospital at Florence, of 506 children born in eight years, (from 1816 to 1824,) the heaviest weighed 16 pounds (the Tuscan weight of 12 ounces) and 4 ounces; the smallest born, at the full period, weighed five pounds; the majority about ten pounds.† In the Obstetrical Institution at Pavia, of 116 children born in two years, 14 pounds 6 ounces was the greatest weight, and 5 pounds the least.‡ In the Royal Lying-in Institution at Dresden, Professor Carus reports 225 children born during 1827. The weight varied from $4\frac{1}{2}$ pounds to $10\frac{1}{4}$ pounds.§ In the same Institution, during 1833, 314 children were born; the heaviest was 10 pounds, and the lightest $2\frac{1}{2}$. In 1834, of 242 children born, the heaviest was 9 pounds, the lightest 2 pounds.|| In the Midwifery Institution at Stuttgart, from 1828 to 1833 there were 572 births; 281 boys and 291 girls. The mean weight was 6 pounds $13\frac{1}{2}$ ounces.¶ At the Lying-in Hospital at Moscow, in 44 cases of both sexes, Richter found the mean weight to be $9\frac{1}{3}$ pounds; minimum 5 pounds, and maximum 11 pounds. At the Lying-in Hospital of St. Peter, (in *Brussels*, I presume,) Quetelet found the mean weight of 63 males,

34 weighed from 1 to $1\frac{1}{2}$ pounds.				1750 weighed from 7 to $7\frac{3}{4}$ pounds.			
69	"	2 to $2\frac{3}{4}$	"	463	"	8 to $8\frac{3}{4}$	"
164	"	3 to $3\frac{3}{4}$	"	82	"	9 to $9\frac{1}{2}$	"
396	"	4 to $4\frac{3}{4}$	"	3	"	10 to ...	"
1317	"	5 to $5\frac{3}{4}$	"	<hr/>			
2799	"	6 to $6\frac{3}{4}$	"	7077			

The following, from Dunglison's Physiology, vol. i. p. 355, is important to be notified in accurate investigations: "The Paris pound, *poids de marc* of 16 ounces, contained 9216 Paris grains, while the *avoirdupois* contain only 8582.5 Paris grains. The English inch is 1.065977 Paris inch."

* Capuron, p. 172. Cranzius says he had seen one *fœtus* weighing twenty-three and another twenty-seven pounds!

† Anderson's Quarterly Journal of Medical Sciences, vol. ii. p. 101.

‡ Ibid., vol. ii. p. 100; and Quarterly Journal For. Medicine, vol. v. p. 330.

§ Lancet, N. S., vol. iii. p. 648.

|| British and Foreign Med. Review, vol. ii. p. 274.

¶ Lancet, N. S., vol. xviii. p. 344. Report by Dr. Elsaesser.

born at the full time, to be $6\frac{1}{2}$ pounds, (3-20 killog.,) and of 56 females, to be $5\frac{1}{8}$ pounds; mean, $6\frac{3}{8}$ pounds. The maximum in the male was $9\frac{3}{8}$ pounds; in the female, $8\frac{1}{8}$ pounds: the minimum in the male, $5\frac{1}{8}$ pounds; in the female, $2\frac{4}{8}$ pounds.*

Professor Simpson, of Edinburgh, has published the following results:—

In the Edinburgh Lying-in Hospital, 50 male and 50 female children, born during the latter months of 1842 and the earlier part of 1843, were weighed by my friend and assistant, Dr. Johnstone.

Fifty males weighed 383 lbs. 11 oz. 4 dr.; average, 7 lbs. 9 oz. 1 dr.

Fifty females weighed 342 lbs. 12 oz. 4 dr.; average, 6 lbs. 12 oz.

Average difference, about 10 ounces.

Lengths of the above:—

Fifty males, total length, $1020\frac{1}{2}$ inches; average 20 inches 5 lines.

Fifty females, total length, $990\frac{1}{2}$ inches; average, 19 inches 10 lines.

Average difference, seven lines, or upwards of half an inch.†

In the first edition of this work, I stated the opinion of my colleague, Professor Willoughby, that the average weight of this country exceeds seven pounds. Professor Dewees decidedly agrees to this, as the result of his experience. He has met with two ascertained cases of fifteen pounds, and several which he believes to be of equal weight.‡ Dr. Wm. Moore, of New York, had several cases where the weight was twelve pounds each; and an instance occurred in that city, in 1821, where the foetus, born dead, weighed sixteen pounds and a half.§

This subject has been but little attended to in this country,

* Annales d'Hygiène, vol. x. pp. 12-13.

† Edinburgh Med. and Surgical Journal, vol. lxii. p. 405.

‡ Dewees' Midwifery, 3d edition, p. 89.

§ New York Medical and Physical Journal, vol. ii. p. 20.

and I have, therefore, but few additional results to offer. Dr. Storer, of Boston, (*New England Journ. Med. and Surgery*, vol. i. p. 16,) states that he has found a great disinclination, and at times a decided unwillingness on the part of friends, to have the infant weighed. Of thirty children, fourteen females weighed 112 pounds, or averaged 8 pounds each; and sixteen males weighed $145\frac{1}{4}$ pounds, or averaged 9 pounds each. The males and females weighed together 257 pounds, or averaged $8\frac{1}{2}$ pounds each. The largest child seen by Dr. Storer was a male, and weighed 13 pounds; the next in weight was $12\frac{1}{2}$ pounds. One weighed 11, one $10\frac{1}{2}$, and two 10 pounds. The smallest infant was a female; it weighed 1 pound 14 ounces, and lived eighteen hours.

Dr. Metcalf, of the town of Mendon, Massachusetts, has published the following: Of 302 children, the mean weight is 8 pounds 2 ounces; of the males, 8 pounds 6 ounces, and of the females 7 pounds 12 ounces. A child weighing 4 pounds survived, and there were a number at each of the intermediate weights; 29 varied from 10 to 11 pounds, and there were two weighing $11\frac{1}{2}$ pounds. (*Amer. Journ. Med. Sciences*, N. S., vol. vi. p. 335.)

Dr. Burwell weighed 100 males at the full term, in the Philadelphia Hospital, and found the average to be 7 pounds $\frac{3}{4}$ ounce, and that of 100 females, 6 pounds $8\frac{1}{2}$ ounces. The heaviest was a female, weighing 15 pounds 1 ounce; the lightest, a female twin, 2 pounds 14 ounces. It lived two or three days. Its mate weighed 3 pounds 10 ounces, and survived. Thirty-nine children weighed from $8\frac{1}{2}$ to $9\frac{1}{2}$ pounds, eight from $9\frac{1}{2}$ to $10\frac{1}{2}$ pounds, one of 12 pounds, and one of 15 pounds 1 ounce.

Length—Average of 100 males, $19\frac{1}{10}$ inches.

“ “ 100 females, $18\frac{3}{4}$ inches.

Longest, a male, $21\frac{1}{2}$ inches.

Shortest, a female, 16 inches.

Average of both sexes, from vertex to umbilicus, $10\frac{1}{2}$ inches. (*Amer. Journ. Med. Sciences*, N. S., vol. vii. p. 230.)

The most correct deduction, probably, from the whole mass

of observations, is to allow the average to vary from five to eight pounds.*

When there are two children in utero, the weight of each individual is generally less than that of a single foetus, but their united weight is greater. The average weight of twelve twins examined by Dr. Clarke, was eleven pounds the pair, or five and a half each. Duges, from a review of the Registers of Paris, found that, out of 37,441 *accouchemens*, there had been 36,992 single births, 444 twins, and 5 triplets. The twins averaged four pounds each in weight, and the extremes are three and eight pounds.† Respecting triplets, we have not sufficient data to form a general rule. Duges thinks that they have rarely less weight than twins. In a case that occurred to Dr. West, at Tiverton, Rhode Island, the respective developments were as follows:—

<i>Length.</i>	<i>Weight.</i>	
15 $\frac{3}{4}$ in.....	4 lb. 3 oz.	Navel in the centre.
15 $\frac{3}{8}$ in.....	3 lb. 8 oz.	Navel half an inch below centre.
17 $\frac{1}{4}$ in.....	4 lb. 9 oz.	Navel half an inch below centre.

They were all females.‡

Dr. Donnellan, of Louisiana, delivered a woman of two boys and a girl. They weighed respectively nine and a half

* It is a popular opinion that children diminish in weight during the first few days of their lives. Dr. Hoffman, of Wurtsburg, had thirty-six children, who were successively born in the hospital, weighed every morning. The general result was, that all children lose weight for thirty-six or forty-eight hours, such diminution usually continuing till the third day. From this period they increase, so that by the fifth or sixth day they have regained their weight at birth. (*Brit. and For. Medico-Chir. Rev.*, No. 13, Jan. 1851.)

Some observations of Chaussier, reproduced by Quetelet, in the *Annales d'Hygiène*, vol. x. p. 15, afford some confirmation to these of Hoffman. In seven children weighed every day for seven days, the weight diminished for two days, and was not fully regained on the seventh.

† London Medical Repository, vol. xxv. p. 555, from *Revue Medicale*, March, 1826. "Dr. Clarke had seen no case of twins weigh more than twelve pounds; now every year I see twins weigh fourteen pounds." Notes of Professor Hamilton's (of Edinburgh) Lectures, in Lyall's *Gardner Peerage Case*; Introduction, p. 28.

‡ Boston Medical Magazine, vol. ii. p. 393.

pounds, seven and a half, and seven—total, twenty-four pounds.* Dr. Lawrence, of Cincinnati, Ohio, of two males and a female, all nearly of the same size; and their aggregate weight was seventeen pounds.† Dr. Buchanan, of Columbia, Tennessee, had a case, a male of seven pounds, another of four pounds, and a female of five pounds—total, sixteen pounds.‡ Dr. David, of Three Rivers, Canada, in 1842 delivered a woman of one female and two male children. They were all perfectly formed, weighed six and a half pounds each, and measured sixteen and a half inches. (London and Ed. Monthly Journ. Med. Science, vol. ii. p. 593.)

Dr. Hull, of Manchester, met with a delivery of five children who did not weigh five pounds and a quarter. They measured from eight to nine inches in length, and two of them were born alive.§ Dr. Bryan, of Fairfield, in this State, had, however, a case of four children, which all lived a day, and their aggregate weight was eleven pounds fourteen ounces. Their length varied from $14\frac{3}{4}$ inches to $17\frac{1}{2}$ inches.|| Dr. Hubbard, of Glastonbury, in Connecticut, recently met with a case of triplets, in which the united weight was eighteen pounds. Two were born alive, and remained so at the end of nine months; the third was still-born.¶ In the Western Medical Gazette, No. 16, August 1, 1833, a practitioner gives an account of triplets born alive, and all surviving until the sixth day, when one died. On the eighth day another died, but the third did well. Their united weight, exclusive of the placentas, was twenty-two and a fourth pounds; a boy of nine pounds, a boy of seven and a half, and a girl five and three-fourths pounds. In a case at Boston, by Dr. Palmer, one child, a boy, weighed seven pounds, another, a girl, six pounds,

* American Journal Med. Sciences, vol. xxv. p. 60.

† Western Journal of Medicine and Surgery, vol. i. p. 368.

‡ Ibid., vol. iii. p. 253.

§ Philosophical Transactions, vol. lxxvii. p. 344.

|| New York Medical and Physical Journal, vol. i. p. 417.

¶ Boston Medical and Surgical Journal, vol. v. p. 414.

a third, a *lusus naturæ*, five pounds, the placenta two pounds—total, twenty pounds.*

A female at Naples was delivered, about 1838, at seven months, of five children, four males and one female. They each weighed three and a half pounds, and measured in length a French foot.†

Mr. Wardleworth delivered a female in the County of Lancaster, England, in 1829, of five children, three males and two females; each measured from twelve to thirteen inches in length, and the whole of them weighed ten pounds. They survived from fifteen to twenty minutes.‡

Dr. Pecot, of Besançon, reports the following case:—

<i>Length.</i>	<i>Weight.</i>
15½ in.....	3½ lb. 0 oz.
15 in.....	3 lb. 9 oz.
15½ in.....	3 lb. 8 oz.
15¼ in.....	2 lb. 12 oz.

All males, and all born alive. Two died the fourth day, one the fifth day, and the last one the twenty-fourth day. (Bulletin de l'Acad. Royale de Médecine, vol. i. p. 95.)

[The following most extraordinary instance of fecundity ought to be put on record, and I know of no better place to insert it. Mrs. M., wife of a New York merchant, was delivered of her first child, July 24, 1858. On the 30th June, 1859, she had twins; on the 29th March, 1860, again she had twins. March 1st, 1861, she was delivered of three children, and, February 13th, 1862, she had four. All these children were living April, 1862. Thus, it appears, that this woman had twelve children (six boys and six girls) in less than four years.—C. R. G.]

The length of the foetus at the full time varies much less

* Boston Medical Magazine, vol. ii. p. 328.

† British and Foreign Med. Review, vol. viii. p. 564.

‡ London Med. Gazette, vol. xxviii. p. 472. Mr. Donnell, a case at Franklin, State of Illinois, of four children, a girl 6 pounds, a girl 4¾, a girl 2¼, and a boy 6½—total, 19½ pounds; all well formed, and surviving five weeks, when the smallest died. (Illinois and Indiana Med. and Surg. Journal, vol. ii. p. 452.)

than its weight. Roederer concludes from his examinations, that the average length of a male is twenty inches and a third, while that of a female is nineteen inches and seventeen-eighteenths.* Petit assigns twenty-one inches as the usual length. Hutchinson says it is ordinarily from nineteen to twenty-two inches, and seventeen and twenty-six inches will include the two extremes, excepting some very rare cases; while Foderé and Capuron place the extremes from sixteen to twenty-three.†

In the institutions quoted above as to weight, the length was as follows: At Florence, the greatest length 20 inches; the least 15 inches; the common length from 17 to 18. At Pavia, from 21 inches and 3 lines to 15 inches and 9 lines. At Dresden, in 1827, from 20 to 16½ inches; 1833, greatest length 22·37 inches; least 14·91. In 1834, greatest 21·30; least 14·38. At Stuttgart, mean length 16·8 inches. At Moscow the mean length, ascertained by Richter, was 18½ Paris inches; maximum 21, and minimum 15. At Brussels, the mean length of 65 males was 18 inches and 3 lines; of 56 females, 17 inches and 10 lines. (Quetelet.)

Dr. Dewees once delivered a child that measured 27 inches.‡

A reviewer in the *Edinburgh Medical and Surgical Journal* states that of 64 children, of both sexes, measured by him in

* There is some discrepancy in Roederer's results. Dr. Craigie says that he found the mean length of sixteen male children, born at the full time, to be twenty and ten-twelfths inches, and of eight females, only twenty and four-twelfths. (*Anatomy*, p. 77.)

† Bose (in Schlegel, vol. iii. p. 25) says he has met with two—"Viginti et quatuor pollices ulnæ Lipsicæ pene superasse, hos ultimos autem a rusticis matribus progenitos fuisse."

‡ The following curious case is taken from the *Edinburgh Medical and Surgical Journal*, vol. iv. p. 516. "The public newspapers recorded the following birth, in the month of May, 1808. At the poor-house in Stoke-upon-Trent, (Staffordshire,) Hannah Bourne, a deformed dwarf, measuring only twenty-five inches in height, was, after a tedious and difficult labor, delivered of a female child of the ordinary size, measuring twenty-one and a half inches, being only three and half less than the mother. The child was, in every respect, perfect, but still-born. The mother is likely to do well."

the country, (Scotland,) the average was between 19 and 20 inches. Chaussier makes it 18 French inches, and Billard, from the measurement of 54 infants, concludes that from 16 to 17 French inches is the standard length.*

It is evident that the signs drawn from the structure, weight, and dimensions of the foetus are liable to some uncertainty; this depends on various circumstances, such as the age and vigor of the mother, her mode of life, the diseases to which she may have been subject, and probably the climate in which she lives.

The characters which mark the maturity and perfection of the organs and functions of the child are thus stated by Foderé and Capuron: The ability to cry as soon as it reaches the atmospheric air, or shortly thereafter, and also to move its limbs with facility, and more or less strength; the body being of a clear-red color;† the mouth, nostrils, eyelids, and ears perfectly open; the bones of the cranium possessing some solidity, and the fontanelles not far apart; the hair, eyebrows, and nails perfectly developed; the free discharge of the urine or meconium in a few hours after birth; and finally, the power of swallowing and digesting, indicated by its seizing the nipple or a finger placed in its mouth.‡

The child, on the contrary, is considered immature,§ when

* Edinburgh Medical and Surgical Journal, vol. xl. p. 192.

† This *generally*, according to Billard, disappears from the fifth to the eighth day, and is succeeded by various shades before it becomes white. Desquamation of the cuticle also, in powder or in scales, generally begins at twenty-four hours after birth, and continues to the third or fourth day. (Cummin, London Med. Gazette, vol. xix. p. 71.)

‡ "In mature children, the scrotum is corrugated, not particularly red, and generally containing the testes; in female children the nymphæ are covered by the labia; whereas, as Professor Nægele observes, in premature children the testes are not always down, the labia are apart, and the nymphæ protrude, and in both sexes the generative organs are extremely red." (British and Foreign Medical Review, vol. i. p. 104.)

§ By this term is understood a birth before the full period of gestation. Again, a delivery before the seventh month is called an *abortion*; and at any time between the seventh and ninth month, a *premature birth*. There is, however, a want of uniformity among writers concerning this. Drs. Cop-

its length and volume are much less than that of an infant at the full time; when it does not move its members, and makes only feeble motions; when it seems unable to suck, and has to be fed artificially; when its skin is of an intense-red color, and traversed by numerous bluish vessels; when the head is covered with a down, and the nails are not formed; when the bones of the head are soft, and the fontanelles widely separated; the eyelids, mouth, and nostrils closed; when it sleeps continually, and an artificial heat is necessary to preserve it; and when it discharges its urine and the meconium imperfectly.*

Should the examiner be called on to decide this question after the death of the child, it will be his duty, after noticing such external circumstances as I have already indicated, to proceed to a dissection of the body. All those appearances which mark the presence of foetal life, and which are distinctly explained in anatomical and obstetrical works, should be care-

land and Duges consider that the term premature labor is not applicable till the foetus has passed the sixth month. Dr. Dewees fixes the limit of abortion to expulsions of the ovum before the fifth month; while the Germans recognize three periods: *abortion*, all expulsions during the first sixteen weeks of pregnancy; *immature birth*, from that up to the twenty-eight weeks; after which, until about the thirty-seventh week, they come under the last division, *premature labor*. (British and Foreign Med. Review, vol. vi. p. 81.)

* I insert the following extract from an English newspaper, which I accidentally met with, because it favors us with some information from an eminently experienced accoucheur: "In the evidence on Bailey's divorce bill, in the House of Lords, March 10, 1817, the point in dispute appeared to be, whether Mr. Bailey's child was full grown at its birth. The nurse swore that it cried with a strong voice, and was fed three times in the course of the day when it was born. Dr. Gardiner, the attending physician, corroborated the testimony of the nurse as to the full growth of the child. Dr. Merriman was then called in, and examined as to the consequences of a premature birth on the offspring. He said he had known a child born in six months and eighteen days, live to grow up, but never to become stout. A child born under such circumstances would be smaller than usual; the skin would be redder, and the face not so completely formed. As far as his experience went, he should conclude that it could not cry strongly, and would be oppressed by difficult respiration. The perfect conformation of the nails, strong voice, and usual size, were proofs of a full-grown child." (Globe newspaper, March 11, 1817.)

fully noticed.* The navel, liver, heart, and particularly the lungs, should be examined; and the inquiry must be whether the changes necessary for independent life have taken place.

III. *The state necessary to enable the new-born infant to inherit.*

It frequently becomes a question of great importance in civil cases, and particularly in those relating to the disposition of property, to ascertain whether the infant is born alive. In this country the subject becomes very interesting, since our law is borrowed from that of England, which is peculiar in some of its provisions, and enables property to be held by a certain class of persons on the establishment of the above fact. For the sake of order, I shall, in the first place, briefly notice the period of gestation after which children are considered capable of living; secondly, mention the laws of various countries, and the decisions under them, as to what constitutes the life necessary for inheritance in the infant; and shall then conclude with some observations on the question how far deformity incapacitates from inheriting.

1. The French employ a very useful word in noticing this subject—the *viability* of the infant; and I shall take the liberty of using it, although aware that great caution is necessary in the introduction of foreign terms. As a general rule, it seems now to be generally conceded, that no infant can be born *viable*, or capable of living, until one hundred and fifty days, or five months, after conception.† There are, how-

* Burns' Midwifery, pp. 118 to 122.

† Dr. William Hunter, however, when asked what is the earliest time for a child's being born alive, answered: "A child may be born alive at three months; but we see none born with powers of coming to manhood, or of being reared, before seven calendar months, or near that time. At six months, it cannot be." (Hargrave's Note, 190*, on section 188, of Coke upon Littleton.)

The Roman law, by one of its provisions, *de suis et legitimis hæredibus*, decided that a child might be born alive six months and two days after conception; and by another, *de statu hominum*, required seven months. (Foderé, vol. ii. p. 110.)

ever, cases mentioned to the contrary. In such cases, we should recollect that females are liable to mistakes in their calculations; and that conception may take place at various times during the menstrual intervals, and thus vary the length of the gestation. Such early living births are at the present day very generally and very properly doubted.

The following are said to be extracts from the lectures of the eminent Professor Hamilton, of Edinburgh: "All accounts of children living to maturity, who were brought forth at the fifth or sixth month, are fabulous, at least I consider them so. I lately brought a child into the world a few days after the completion of the sixth month, which, to my surprise, was alive, and which nearly lived three days; and this is the longest period that I ever knew so early a fœtus to live. At the completion of, or a few days after, the seventh month, a child may, and certainly often does, live to maturity. When I first began practice, I supposed no child could live to maturity which weighed less than five pounds avoirdupois, but experience has convinced me to the contrary; and now I am confident that a child of four and a quarter pounds weight may live to maturity. No child at the full period of pregnancy weighs less than five pounds avoirdupois, and the common weight of children at the full period is seven pounds."*

In a late case in Scotland, Dr. Hamilton continued to maintain the above opinion. The Rev. Mr. Jardine, of Kinghorn, was married on the 3d of March, and on the 24th of August Mrs. J. was delivered of a very weak child, not three pounds in weight, but which, with great care, had hitherto been kept alive. Mr. Jardine solemnly declared himself innocent, and threw himself upon the Presbytery. Dr. Hamilton was requested by that reverend body to come on and investigate the case. He could not, but wrote two letters, stating his own experience to be against the probability of a child born in the sixth month surviving; referring, however, to two instances where children under similar circumstances had lived. One occurred in 1710, when the wife of a clergyman in the Pres-

* Lyall's Gardner Peerage Case; Introduction, p. 28.

bytery of Wigton was delivered of a living child within five lunar months after marriage, and Dr. Pitcairn, with other physicians, gave it as their opinion that the child had been procreated after marriage. The other was in Paisley, in 1815, when a married woman, who had previously had children, gave birth to a child nineteen weeks after conception, and it lived a year and a half.

Dr. Thatcher was then written to. He came to Kinghorn, and the result was a certificate in favor of Mr. Jardine. He believed it possible. It appears satisfactorily that the marriage, after being a matter of notoriety, was contracted at the appointed time. And when the child was born there was no preparation for it—no clothing had been made—all were taken by surprise. The Presbytery acquitted Mr. Jardine of all criminality.*

[By far the most satisfactory case on record is that related by Dr. Outrepont, of Bamberg, in the *Zeitschrift für Staatsartz*, vol. vi. p. 19. Of this case, Hencke says it is an incontrovertible proof of the possibility of rearing a six months' child. Guy remarks that the evidence is as complete as it is possible for it to be in a case of the kind. I give an abstract of the case from Guy, p. 182, English edition: The mother, a young woman, who had always been perfectly regular, menstruated in the usual way ten days after her marriage, and subsequently to this time was repeatedly connected with her husband. About a fortnight after her menstruation, her ap-

* London Med. Gazette, vol. xvii. p. 92. (From the Fife Herald, October 1, 1835.) The individual who communicates this case says that he has recently seen a child prematurely born, (certainly before seven months,) which at birth weighed only two and a half pounds. "It was alive when I saw it, and lived twelve days."

Mr. Jardine's case did not terminate with the above decision of the Presbytery, but was carried up by appeal to the Synod and the General Assembly. The final result, however, was an acquittal. A full statement of the case, with the medical testimony pro and con., may be found in the *Medico-Chirurgical Review*, vol. xxxv. pp. 424-443.

The child died on the twentieth of March succeeding, having nearly completed the age of seven months.

pearance changed. She had attacks of vomiting and fainting which she never had had before. These symptoms continued, and the menses did not return, and about twenty weeks after their last appearance she felt the first movements of the child. Five weeks after this, and twenty-seven after the last appearance of the menses, she had labor-pains and hemorrhage, depending on placenta prævia. The labor was brought by Dr. O. to a favorable issue. Here the evidence of the child not being more than twenty-five (seven?) weeks old, is as strong as it ever can be. The state of the child offered evidence still more unequivocal. It was a boy; breathed immediately; measured $13\frac{1}{2}$ inches, and weighed one pound and a half. Its skin, much wrinkled, was covered with smooth lank down. The extremities were extremely small in proportion to the trunk, and were kept constantly bent over the body, the intra-uterine position. The nails were like white folds of skin; the testes were in the belly, and the *membrana pupillaris* was entire. It whined, but could not cry; slept almost constantly; seldom opened its eyes, and was obviously insensible to light and sound. Urine was first passed on the seventh and feces on the ninth day. By most assiduous care this child was reared, and was eleven years old when last seen by Dr. O. He was the size of a boy of seven, and had just begun to read.—C. R. G.]

We may, from these observations, conclude that between five and seven months there have been instances of infants living, though most rare; and even at seven, the chance of surviving six hours after birth is much against the child.*

* Belloc and Capuron, among modern authors, mention instances of children surviving at six and a half months. They were very feeble and small; the head covered only with a light down, and the nails scarcely formed. There are some recent cases related in the journals, which may here be mentioned, but with the same caution as already offered. A supposed six and a half months' child, born near Calcutta, of European parents; at the time of the description, it was a month and twenty days old; weighed one pound and thirteen ounces; was fourteen inches in length, and was then suckling well. (Case by Mr. Baker, in Transactions of Medical and Physical Society of Calcutta, vol. i. p. 364.)

A case by Mr. Cribb, where the mother menstruated last on the fifteenth

An opinion, which appears to be as old as the days of Hippocrates, has occupied the attention of many writers, concern-

of April, and was taken in labor on the second of November, 1827. The child was very diminutive, but at ten months it weighed twelve pounds. (London Medical and Surgical Journal for November, 1828.)

A case by Mr. Greening, of Worcester, in Midland Medical and Surgical Reporter, vol. ii. p. 362.

Sundry cases, quoted from Meli, an Italian writer on viability, in *Annales d'Hygiène*, vol. viii. p. 466. Some of these are of five months.

A case by Mr. Thomson, of Alva, Stirlingshire, of a child of five months and a few days (as was supposed) surviving three hours and a half. Its length was twelve and a half inches, and its weight one pound eight and three-quarter ounces. The eyes were unopened, and the nails not apparent. (London Med. Gazette, vol. xix. p. 866.)

Dr. Montgomery (Signs of Pregnancy, p. 262) has seen one instance of a foetus, which at the utmost could only have completed the fifth month, and which lived a few minutes, and another of five months and a half, which lived for four hours, "but in both, the state was that of mere existence, without the presence of any condition that could lead to the most remote expectation of life being continued."

Dr. Erbkam, of Berlin, has published an account of an abortion in the fourth month, where the motions of the foetus continued strong for some time after birth. The action of the heart was visible. The length of the foetus was six inches, and its weight four ounces. The eyes were closed. (British and Foreign Med. Review, vol. vi. p. 236.)

Dr. Dugas (Southern Med. Journal) relates the case of a negro woman delivered of a girl weighing seventeen ounces, and which lived twenty-four hours. It opened its eyes and sucked a teat. The period of gestation was probably five and a half months. (Boston Med. and Surg. Journal, vol. xx. p. 130.)

I add for reference and examination the following:—

Case by Mr. Streeter, of twins, at the end of five months. One survived upwards of two months. (Lancet, N. S., vol. xxvii. pp. 415, 447.)

By Dr. Shipman, at the sixth month, survived. (American Journal Med. Sciences, N. S., vol. v. p. 499.)

By Mr. Dodd, do. do. (Transactions Provincial Med. and Surg. Association, vol. ix. p. 128.)

By Dr. Holst, the child born in the twenty-fifth week, and survived three days. (London Med. Gazette, July, 1843.)

By Mr. Tait, child born on the one hundred and seventy-ninth day, survived four months. (Lancet, April 23, 1842.)

By Dr. Cochran, born at the end of the fifth month, and lived six days. (Edinburgh Monthly Journal, vol. ii. p. 260.) The Gazette des Hôp. (June 15, 1850) gives a case where an infant, born six months and

ing the viability of eight months' children. It seems to have been the prevalent idea that they are not so capable of living as those of seven months. Obstetrical writers of the present day [have entirely abandoned this idea.—C. R. G.]

2. If we proceed as far back as the Roman law, we shall find provisions on the subject before us. To enable the infant to succeed to property, it was necessary that *it should be perfectly alive*, "*si vivus perfectè natus est, etsi vocem non emisit*;"* and the decision of Zacchias is in accordance with it. *Non nasci, et natum mori, paria sunt.*

As to France, a capitulary of Dagobert ordained that in order to succeed to property the infant should live an hour, and be able to see the four walls and ceiling of the chamber. An ordinance of Louis IX. altered this law, and directed that it should cry, in order to enable it to succeed.†

The present French law is contained in the 725th and 906th articles of the civil code. *In order to succeed, the infant must be born viable; and in order to receive by testament, it is sufficient to have been conceived at the time of the death of the testator; but neither donation nor testament can have effect, unless the child be born viable.*‡ And the interpretation of the word *life* or *being born alive*, is, according to the most distinguished lawyers and physicians of that nation, *complete and perfect respiration.*§

The English law, so far as it has a bearing on the question before us, is contained in the provisions concerning a *tenant*

ten days after impregnation, and whose condition seemed to forbid the hope of its surviving, was preserved mainly by the constant use of artificial heat.

* Chaussier, Viabilité, p. 3.

† Capuron, p. 198.

‡ Ibid., p. 9.

§ "Enfin les jurisconsultes ont adopté l'opinion des médecins à cet égard, et ne font consister la vie ordinaire que dans la respiration complète. Le célèbre Merlin dit aussi très-formellement qu'il n'y a que la respiration complète que constitue la vie." (Capuron, p. 199.)

Dr. Locock, of London, has lately put this case. A child's head is born, it cries, and of course breathes, and yet before the rest of the body is expelled, it dies. Can property be transmitted on such a life? I apprehend there can be no doubt of it, according to the English law. (See London Medical Gazette, vol. xii. pp. 636, 677.)

by the *curtesy of England*, as it is called. By this is understood, "where a man marries a woman seised of an estate of inheritance, and has by her, issue born alive, which was capable of inheriting her estate. In this case he shall, on the death of his wife, hold the lands for his life, as tenant by the curtesy of England."* The exposition of commentators is as follows: "It must be born alive. Some have had a notion that it must be heard to cry, but that is a mistake. Crying, indeed, is the *strongest* evidence of its being born alive; but it is not the *only* evidence."† Coke says: "If it be born alive, it is sufficient, though it be not heard to cry, for, peradventure, it may be born dumb. It must be proved that the issue was alive; for *mortuus exitus, non est exitus*; so as the crying is but a proof that the child was born alive, and so is motion, stirring, and the like."‡ The cases to which both these authors refer, certainly prove the doctrines stated by them to be the law of England;§ but it is to be feared that the broad principle thus laid down may lead to practical injustice. I

* An ancient provision in the laws of Æthelbert reverses the law as now in force. "If a wife brought forth children alive, and survived her husband, she was to have half his property." (Edinburgh Encyclopedia, vol. ii. p. 102, art. *Anglo-Saxon Laws*.)

† Blackstone, vol. ii. p. 127.

‡ Coke Littleton, 30 a.

§ Dyer's Reports, p. 25. "It was moved, that a man shall be tenant by the curtesy, although the issue be not heard to cry, so as it can be known that it hath life, for it may be, the issue is born dumb." So was the opinion of Fitzherbert. This was in the 28th of Henry VIII. The other case (Paine's, in 8th Coke's Reports) is instructive, because it gives us the opinion of the old writers on this subject. Glanvil says that the husband inherits, "*ex uxore sua hæred' habuerit filiam clamantem et auditam infra quatuor parietes*." And Bracton, "Sive superst' fuerit liberi sive mortui, dum tamen semel aut vocem aut clamorem dismiserint, quod audiatur inter quatuor parietes, si hoc probet, et licet partus moriat' in ipso partu, vel vivus nascatur, vel forte semi-mortuus, licet vocem non emiseric, solent obstetrices in fraud' veri hæred' protestari partum vivum nasci et legitim', et ideo necesse et vocem probare, et licet naturaliter mutus nascitur et surdus, tamen clamorem emittere debet." The court, however, (Common Pleas, 29th of Elizabeth,) decided according to the dictum of Littleton, as adopted by the commentators in the text, that "*the crying is but a proof of the life. But in the case at bar, to remove all scruples, it was found that the issue was heard to cry.*"

cannot better illustrate my ideas on this point, than by stating the following case, which lately occurred in England.

In 1806 a cause, entitled *Fish or Fisher v. Palmer*, was tried before the court of exchequer at Westminster Hall. It appears that an infant was born to Mr. Fish, in 1796, which was supposed to be still-born; and on the death of his wife, he accordingly resigned her property to the legal heir. Some circumstances afterwards occurred which induced him to bring the present action, and to attempt to prove that the child had not been born dead.

Dr. Lyon (deceased at the time of the trial) had declared an hour before the birth that the child was alive; and having directed a warm bath to be prepared, gave the child, when born, to the nurse, to be immersed in the warm water. It did not cry, nor move, nor show any symptoms of life; but while in the water, (according to the testimony of two females, the nurse and the cook,) there twice appeared a twitching and tremulous motion of the lips. Upon informing Dr. Lyon of this, he directed them to blow into its throat; but it never exhibited any other signs of life.

Several physicians were examined as to the deduction to be drawn from these symptoms. Drs. Babington and Haighton agreed that the muscular motion of the lips could not have happened, if the vital principle had been quite extinct; and that therefore the child was alive. Dr. Denman, on the contrary, gave it as his opinion that the child was not alive. He considered that the motion of the lips did not prove the presence of the vital principle, and drew a distinction between uterine and extra-uterine life. The remains of the former, he thought, might have produced the twitching of the lips. The jury, however, found that the child was born alive; and the property, which he had surrendered ten years previous, returned again to Mr. Fish.*

It will readily be observed, that a very extensive latitude is given to juries by this decision; and that they may decide

* Foderé, vol. ii. p. 160; Smith, p. 383.

contrary to what is correct in physiology, on the opinions of men incompetent to guide on this subject. In the instance before us, indeed, they were justified in their verdict by the testimony of eminent physicians, but it must also be remarked, that the proofs of life relied on by them are equivocal. It has been suggested, and I think with truth, that these convulsive motions merely show that the muscular fibre has not yet lost its contractility. Still-born infants, or those who die instantly on being delivered, are not unfrequently observed to open their mouth, and extend their arms or legs. May not these be merely the relaxation of a contracted muscle, or the stimulus of the atmospheric air on a body unaccustomed to it? * Foderé remarks, that in his youth he has frequently seen still-born children carried to a chapel of the Virgin, which was built on high ground. The cold air of the place produced such an excitement, that they appeared to raise their eyelids for an instant, and that instant was improved to administer the rite of baptism. † Chaussier also examined the body of several children, born at five, six, and even seven months, who were said to have lived one or two hours, and in whom a motion of the jaws and members had been observed, and indeed a slight respiration. He ascertained by dissection, that not one of them had lived after birth, and concluded that the proofs observed owed some of their strength to the wishes of friends, and were in fact nothing more than the feeble remains of foetal life, resembling, in many respects, the appearances observed on the body of an animal recently decapitated. ‡

* I am happy to add the opinion of so eminent a writer on physiology as Professor Dunglison, in favor of the doctrine advocated above. "The irritability shown," says he, "must be regarded simply as an evidence that the parts have previously and recently formed part of a living system." (*Human Physiology*, vol i. p. 317.)

† Foderé, vol. ii. p. 160. "Notwithstanding all this, I think that where there is a power of being affected by stimuli, (other than galvanic or electric,) this, in common sense, must be held to constitute vitality; and no practical good can result from nice metaphysical distinctions between foetal and extra-uterine life, when the child is fairly in the open air." (DUNLOP.)

‡ Capuron, p. 198. The action of sucking in the new-born infant has

One of Chaussier's latest productions (at the age of eighty-one) was an appeal to the Minister of Justice, in France, relative to the looseness of the law on this subject. He notices the various signs, and shows their insufficiency. The pulsation at the umbilical cord, and the spouting of blood from it when cut, only prove that the blood has preserved its fluidity, and that there is some action left in the vessel. The evacuation of the meconium should not be deemed a sign of life, since it is sometimes discharged in the womb, and is often caused by a compression of the abdomen. Nor is the objection mentioned by Lord Coke, that the deaf and dumb cannot cry, and that therefore there might be injustice done in some cases, correct, since experience and observation show that they do cry when perfectly alive.* Chaussier insists that the proofs of life, in these disputed cases, should be positive and manifest—such as the high red color and warmth of the skin; a free and full respiration; sharp and continued crying, and motion of the heart and limbs, and these continuing for a longer time than a few minutes.†

been shown to be purely instinctive. Mr. Granger removed the brain in several puppies, and, notwithstanding, on being brought up to the nipple, they attempted to seize hold of it. (British and Foreign Medical Review, vol. v. p. 507.)

The reviewer of Barzellotti's Treatise on Medical Jurisprudence, in the last-named work, (vol. ix. p. 44,) is, however, of opinion that the least action indicative of vitality, as the quivering of a lip, is sufficient to establish the point that the child was not dead when born. He also characterizes the above distinctions of Denman, Foderé, and Chaussier, of uterine and extra-uterine life, as absurd.

* "It need scarcely be said, that the deaf and dumb cry at the moment of birth, the same as other children. The natural cry is effected by them, as well as by the infant that possesses all its senses. It is the *acquired* voice alone which they are incapable of attaining." (Dunlison's Physiology, vol. i. p. 317.)

† Chaussier, *Memoire medico-legale sur la viabilité, de l'enfant naissant*; Paris, 1826. In 1828, Collard de Martigny, a French lawyer, also wrote on this subject, in consequence of the examination of a child, born alive at the full time, which breathed, cried, and moved, but died at the end of ten minutes; and on dissection, such marks of disease were found as precluded the possibility of its surviving. Was this a case to which the law applied:

The Scotch law seems to be more precise in its provisions. Individuals there, as in England, are allowed to hold property as tenants by the curtesy; but it can only take place where the issue has been heard to cry. "Lord Stair, in his Institutes, lays it down, that the children of the marriage must attain that maturity as to be heard to cry or weep; and adds, that the law hath well fixed the maturity of the children by their crying or weeping, and hath not left it to the conjecture of witnesses whether the child was ripe or not." A case, in conformity to this doctrine, was decided in 1765, in the court of session, (*Dobie v. Richardson*.) "Dobie's wife brought forth a child about nine months after marriage, which breathed, raised one eyelid, and expired in the usual convulsions about half an hour after its birth, *but was not heard to cry*. The mother died in childbed; and the question was, whether the *jus mariti* was not lost by the death of the wife within the year, without a child of the marriage, *who had been heard to cry*? After much argument on both sides, the decree was, that as the wife did not live a year and a day after her marriage, and *as it was not proved* that the child or fœtus of which she was delivered *was heard to cry*, the husband was not entitled to any part of his deceased wife's effects."*

The following occurred in the court of session in 1833: The Rev. William Blackie made certain provisions in his will, dependent on his daughter and her husband having "two children living at any time." It was held that an averment that a child which had been born at the seventh month, "was born alive and continued to live during three-quarters of an hour, and was perceived to breathe repeatedly, and its heart

or, in other words, was it *viable* civilly, although it evidently was not *naturally* so? Our author justly decides in the affirmative. It is manifest that any discussions beyond that of the proof of the existence of *perfect life*, (no matter how short that may be,) must lead to interminable disputes, and the benefit of a general rule will be lost in the consideration and adjustment of every individual case. This difficulty, however, can only occur in cases under the French law, and originates in the proper interpretation of the word *viable*. (*Questions de Jurisprudence*, etc.)

* See a note to Dyer's Reports, 25, by the editor, John Vaillant, A.M., etc.

distinctly felt to beat, but it being admitted that it had not been heard to cry, was not relevant to infer that the child was a living child."

The court was strongly urged to waive the case of Dobie and take the directions of the civil law. "The having breathed is truly the test." But, on the other hand, the fixed criterion of the Scotch law was argued as alone admissible, and it was so decided, although one of the judges was of a different opinion.*

The following are continental cases: "A lady at Turin, aged twenty, died intestate on the twenty-eighth day of October, 1818, in the last stage of gestation, and on the tenth day of a putrid fever. Immediately after she had breathed her last gasp, at half-past two A.M., there was extracted from her, by the Cæsarean operation, a child which was still alive, but which died at the end of thirteen minutes, and which was not opened after death. The husband, who was a witness of the operation, along with the surgeon who performed it, declared himself the heir of the child, resting his claims upon the declaration of the surgeon, which were that the child had all the characters of maturity, and that it was living, which he discovered by motions of the legs and feet, which had taken place before, during, and after the operation; by the child's opening its hands, which were closed; by the circumstances, that on cutting the umbilical cord blood sprung out, and that pulsations were felt in the cord, the carotid arteries, and the region of the heart; by the circumstance, that on pouring water on the child's head in administering baptism to it, there resulted a motion of the lips and mouth, and an impression which produced an inspiration; and lastly, by the circumstance, that the natural heat remained; that after having lived about thirteen or fourteen minutes, some drops of blood came from the nose of the child; that it became pale, stretched its limbs, closed its eyes, and died. The brothers of the deceased opposed the husband in his claims, and during

* *Roberton v. Roberton*, cases in the court of session, vol. xi. p. 297.

the procedure dependent before the Senate of Turin, some distinguished members of the medical faculty of that city proposed the following questions to the faculty of Strasburg:— 1. If it be sufficiently proved by the motions, of which mention is made in the above declaration, that the child in question lived a life which rendered it capable of succeeding; that it had been born capable of living, in consequence of the operation performed upon its already dead mother, and that it had really breathed? 2. If the dissection of the child's body, which had been neglected, might not have been of great assistance in determining whether the child had actually lived, and discovering the cause of its death, which had been so quick? The faculty named a commission, composed of Professors Lauth, Lobstein, Flamant, Tourdes, and Foderé, and it was unanimously decided that the first question should be answered affirmatively, and the second negatively.”*

In April, 1834, a female in France, supposed to be eight months advanced in pregnancy, was seized with convulsions, and died. At about a quarter of an hour after her death, Dr. Cabaret performed the Cæsarean operation and extracted a child. This physician swore that he saw its chest and ribs move; that there was pulsation in the umbilical cord, and also at its base, after it was cut off, and that on laying his hand on the region of the heart, he felt its beating. The body was put into a warm bath, and immediately on immersion, the right hand was raised toward the head and a slight respiration ensued. After this it was motionless. Dr. Cabaret therefore considered that it had breathed, though feebly, and for a space of time not exceeding five minutes. This testimony was confirmed by several female witnesses who were in attendance on the mother.

On the other hand, a physician swore that the child must have been dead, since he had been for eleven hours in attendance on the mother, previous to her decease, and had felt no

* From a Critical Notice of “*Anthropogenese*,” by J. B. Demangeon, M.D., Paris, 1829, in *Edinburgh Journal of Natural and Geographical Science*, vol. ii. p. 198.

motion in the uterus. He had, however, not been present at the operation.

Thirty-three days after the extraction of the child, it was disinterred and examined. The lungs were compact and of a reddish-brown color, and though the chest was arched, yet they did not fill it. The left lung was emphysematous at its upper part; there was meconium in the intestines, and the stomach and bladder were empty. The body bore all the marks of a fœtus between seven and eight months advanced. The lungs, with the heart annexed, on being put into a vessel of water, floated. When the heart was removed and the right lung was placed in the water, it sank, but the left floated. On cutting it into pieces, all these sank, except portions from the emphysematous part.

The question was now put to several physicians, whether this state of facts proved that the child had lived. Velpeau gave an affirmative answer. The pulsations of the heart and cord, and the movement of the hand, showed that the blood was not motionless in its vessels. It was not, therefore, he said, dead at this period. Orfila, Dubois, Pelletan, and others were of a contrary opinion. The first ascribes the condition of the left lung to the progress of putrefaction. If it had originated from independent respiration, the right lung should have contained more air than the left. The pulsation in the umbilical cord also showed that extra-uterine life was not established. Dubois remarks that it did not live, in the law sense required, since the pulsations spoken of equally take place in utero.

The court finally submitted the case to the consideration of Drs. Marjolin, Roux, and Marc, and required answers to the following questions: 1. *Whether the child had lived?* 2. *Was it born viable?* Those gentlemen commence their opinion by inquiring whether there was anything in the disease of the mother, and the consequent operation, incompatible with the surviving of the child; and, after showing by numerous authorities that there was not, although the chances were small, they next proceed to canvass the testimony.

The motion of the arm is supposed to be mechanical, owing to the stimulus of immersion acting on the remains of foetal life. So also with respect to what Dr. Cabaret considered to be respiration. If a child breathed ever so feebly for five minutes, it is remarkable that it raised no cry—not even those feeble sounds produced when the air penetrates only so far as the trachea. Finally, the pulsation of the cord ceases as soon as respiration commences.

Having thus disposed of the testimony of Dr. Cabaret, they next proceed to consider that deduced from the dissection. The arched state of the thorax, they suggest, may have arisen from the progress of putrefaction as well as from perfect respiration, and the former is rendered more probable, from the fact that the lungs did not fill the cavity of the chest. They concede that this last is not indispensable, since Schmitt, of Vienna, found a similar condition in a foetus which had lived thirty-six hours; but then the other proofs of breathing must be unequivocal. The compact state of the lungs is also a circumstance against, as also their reddish-brown color, but this last is not much relied on.

As to the floating of the heart and lungs when united, they are disposed to ascribe it to the emphysema that was present. It is also possible that the progress of putrefaction might have developed gas in the heart or its vessels. All the circumstances go to prove this to be the cause and not respiration, and we know in the case of the drowned, that a small quantity of the gases induced by putrefaction is sufficient to float a comparatively heavy body. From these considerations, and believing that all the indications might be referred to the remains of foetal life, they gave it as their opinion that the child had not breathed, and consequently had not lived.

As to the second question, after noticing the appearance of the child, its weight and length, (it weighed two and a half pounds and measured sixteen inches ten lines,) the median line, about an inch above the umbilicus, the state of the nails and hair, etc., they decide that it must have been a foetus be-

tween seven and eight months advanced, and consequently that it was capable of living.*

The only American case relating to this point, that I can find, is that of *Marsellis v. Thalhimer*, which occurred in the chancery court of this State in 1830. The widow was delivered of a full-grown child two months after the death of the husband; it never breathed. On these facts, a dispute arose concerning the disposition of property. It was urged, that the child having been born, the presumption was that it was born alive, until the contrary was proved; and that a child *in ventre sa mere*, was a life in being to all intents and purposes, either as it regarded its own benefit or that of other persons. The opposite doctrine was maintained by most of the arguments and legal enactments which I have already noticed, and the decision of the Chancellor (Walworth) was in conformity to this. "I am satisfied," says he, "from the opinion of the physician examined before the surrogate, that no court is authorized to decide affirmatively that the child was born alive. There is no legal presumption in favor of the fact; and as the mother claimed by descent from the child, she held the affirmative, and was bound to establish her right by legal proof."†

For want of a better place, I insert here a decision of the supreme court of Massachusetts, that an unborn infant may

* *Annales d'Hygiène*, vol. xix. pp. 98 to 169.

† 2 Paige's Chancery Reports, vol. ii. p. 35. I cannot be insensible to the flattering terms in which the Chancellor, in his learned opinion, was pleased to notice this work.

In 1833, the Solicitor-General of England brought into Parliament "An act for the amendment of the law relative to the estate of a tenant by the curtesy of England." In this it was provided that the husband may enjoy the wife's estate as tenant by the curtesy, although actual possession of it in his lifetime may not be had, and although there may not have been issue of the marriage. (*Companion to the Newspaper*, p. 55.)

This act, however, did not pass; and the law remains as it was. The laws in force in Maine and Rhode Island, as to the power of the husband to hold as tenant by the curtesy, are stated by Judge Story, in Sumner's Reports for the First United States Circuit, vol. i. p. 121, *Robinson v. Codman*; *ibid.*, p. 263, *Stoddard v. Gibbs*.

inherit property. I supposed at one time that it was a solitary case, but there seems to have been an earlier one. It is to be hoped that their publication may aid in promoting a reform in the *Criminal Law* on the point in question.

A testator bequeathed the residue of his personal estate to such of his grandchildren as *should be living at his decease*, in equal portions. The testator died June 19, 1809, and Charles L. Hancock, one of his grandchildren, was born March 6, 1810. The court decided that the "distinction between a woman being *pregnant* and being *quick with child*, is applicable mainly, if not exclusively, to criminal cases, and does not apply to cases of descents, devises, and other gifts. In general, a child is to be considered as in *being* from the time of its conception, where it will be for the benefit of such child to be so considered. The time of conception of a child is presumed to be at a period nine months previous to its birth, and where there is no evidence to rebut this presumption, it is considered conclusive." Charles was, therefore, entitled to a share of the property.*

The following decision of Lord Chancellor Macclesfield is quoted by Lord Campbell, in his *Lives of the Chancellors of England*, vol. iv. p. 524:—

An ancestor of the late Sir Francis Burdett devised his estates, "in case he should leave no son at the time of his death," to his cousin Frances Hopegood, and died leaving his wife pregnant without his knowledge. She gave birth to a son, and the question was, which should have the estates? the devisee contending that the testator *left no son at the time of his death*, as it was then doubtful whether any child would be born of the widow, and what the sex might be, so that the estates vested in the devisee, and could not be divested by the son's subsequent birth. But Lord Macclesfield, after consulting the judges of the court of common pleas, held that the infant, Sir Robert Burdett, though not actually born at the death of his father, yet in the eye of the law had existence

* Hall v. Hancock, 15 Pickering's Reports, p. 255.

in his mother's womb, (*ventre sa mere*;) as if a pregnant woman takes poison to kill her child, and the child being born alive, dies of the poison, she is guilty of murder; an unborn child, therefore, may take as heir or devisee, and here it could not be imagined that the testator ever intended to disinherit his own son. So the estates remained with the Burdetts.*

The state of infants delivered by the CÆSAREAN OPERATION belongs also to this place, and I shall illustrate the laws of different countries respecting them, by mentioning various cases that have occurred.

A female, the wife of Matthew Braccius, died at the seventh month of pregnancy, of a violent illness, and a quarter of an hour thereafter an infant was taken from her by the Cæsarean operation. The father claimed to be its heir, and it was asserted in proof of its life, that it had opened its eyes and made some slight motions. Zacchias was consulted on this case, and in his opinion, he asserts that these motions were mechanical, and the effect of the air on the body; and this was corroborated by the fact that, after its extraction, the child was carried into a cold cellar. The decision was conformable to this opinion.† It appears, however, that the court of *Sancta Rosa*, at Rome, allowed an infant to inherit who was delivered by the Cæsarean operation, and who lived for several weeks thereafter.‡

In France, a similar case has been made the subject of controversy. A female, residing in the department of the Loire, died in childbed on the 2d of July, 1780, and after her death an infant was extracted by the Cæsarean operation, which was baptized as being alive. A lawsuit was instituted on the case, and it was proved that the infant had opened and shut its mouth for the space of half an hour; that one of its hands had been opened, and that it closed it again without assistance: that it vomited some froth; that it made several expirations like a person who is dying; and that it was perfectly well

* This case is reported in 1 Peere Williams, Sir Robert Burdett v. Hopegood.

† Zacchias, Consilium, No. 67.

‡ Foderé, vol. ii. p. 163.

formed. It was objected, that the infant was too immature, and consequently was not viable, and of course could not succeed to property. The testimony of the witnesses was also impeached. The court, however, decided that the infant had lived, and refused to consider the question of its viability.*

In England, a person cannot hold property as tenant by the curtesy, if the child has been delivered by the Cæsarean operation. "The issue must be born during the life of the mother; for if the mother dies in labor, and the Cæsarean operation is performed, the husband in this case shall not be tenant by the curtesy: because at the instant of the mother's death, he was clearly not entitled, as having no issue born, but the land descended to the child while he was yet in his mother's womb, and the estate being once so vested, shall not afterwards be taken from him."† "One Reppes, of Northumberland, took to wife an inheritrix, who was great with child by him, and died in her travail, and the issue was ripped out of her belly alive; and by reference out of the chancery to the justice, they resolved that he should not be tenant by the curtesy, for it ought to begin by the birth of the issue, and be consummated by the death of the wife."‡

3. The consideration of the subject, *how far deformity incapacitates from inheriting*, cannot be better introduced than by stating the division of monsters proposed by Buffon. He separates them into three classes—monsters by excess, monsters by defect, and monsters by alteration or wrong position of parts.

Of the first class, a very remarkable instance is related in the case of twins, born at Tzoni, in Hungary, on the 16th of October, 1701. These two females were called Helen and

* Foderé, vol. ii. p. 164.

† Blackstone, vol. ii. p. 128; see also Coke Littleton, 29 b.

‡ Paine's case, 8th Coke's Reports. I do not know that anything can be said on the subject of the FIRST BORN OF TWINS, except the following quotation: "When the question was, which of three sons, all born at a birth, was the eldest, the declaration of a female relation, that she was at the birth, and she tied a string round the arm of the second son, in order to distinguish him, was admitted in evidence." (Starkie on Evidence, vol. iii. p. 1115.)

Judith, and were separated from each other, except at the anus, where they were united, and the function pertaining to that part was performed in common. They lived to the age of twenty-two years. Judith first fell sick, but the health of Helen also became soon impaired, and the latter died three minutes after the former. They expired on the 23d of February, 1723, at Presburg.* The case related by Sir Everard

* See an account of this extraordinary case in the *Philosophical Transactions*, by J. J. Torkos, M.D., F.R.S., (vol. i. p. 311.) A similar instance is mentioned in *Piscottie's History of Scotland*, p. 160. Cases of double births united at various parts, may also be found in the *Philosophical Transactions*, vol. v. p. 2096; vol. xxiii. p. 1416; vol. xxv. p. 2345; vol. xxxii. p. 346; vol. xlv. p. 526; vol. lxxii. p. 44; vol. lxxix. p. 157. A very interesting account of a person in China, named Ake, is contained in *Chapman's Journal*, vol. ii. p. 148, and vol. iii. p. 78; also in *Edinburgh Philosophical Journal*, vol. v. p. 133, and vol. vii. p. 126. He has a living parasite attached to him from the sternum to the umbilicus, and is, notwithstanding, able to do the work of a husbandman.

For references to numerous cases, see *Lawrence's Essay on Monstrous Productions*, in *Medico-Chirurgical Transactions*, vol. v. p. 165; *Dict. des Sciences Medicales*, vol. xxxiv.; *Review of J. G. St. Hilaire on Monstrosities*, in *Edinburgh Medical and Surgical Journal*, vol. xxxix. p. 165; *Chapman's Journal*, N. S., vol. iv. p. 289, and vol. v. p. 17; *Andral's Patholog. Anatomy*, vol. i. p. 110.

For the most recent cases, see *Edinburgh Medico-Chir. Transactions*, vol. ii. p. 35; case by Dr. Berry, of Calcutta. It occurred near that city; both were living, and they were then three years old.

A case at Turin. This monster survived some time, and was exhibited at Paris. (*American Journal Medical Sciences*, vol. v. p. 472; *Jameson's New Edinburgh Philosophical Journal*, vol. vii. p. 196; *Lancet*, N. S., vol. v. p. 194.)

A living duplex child in Switzerland, seen in 1829 by John Borland. (*London Medical Gazette*, vol. v. p. 51; *Lancet*, N. S., vol. xii. p. 620.)

Case by Dr. Scoutetten, of Meiz; one perfectly formed, and the other acephalous. They were both living a year after birth. This is a very curious case. (*Medico-Chirurgical Review*, vol. xxiv. p. 231.)

And in America, Dr. Horner, in *American Journal of Medical Sciences*, vol. viii. p. 349; North American Medical and Surgical Journal, vol. ii. p. 395; Dr. De Camp, in *Boston Medical and Surgical Journal*, vol. ii. p. 518; Dr. Martin, in *Ohio Western Medical and Physical Journal*, vol. iii. p. 290.

Dr. Blackburn, of Kentucky. Two children united from the sacrum to the coccyx, and one anus common to both. The pudenda were united; the labia were incomplete, inasmuch as there was but one for each child. They

Home, in the Philosophical Transactions, belongs also to this division. A male child was born in Bengal, in 1793, with a well-formed body, but it had a second head, placed in an inverted position on the top of the proper one. This was equally perfect, and at the age of six months both were naturally covered with black hair. The child lived four years, and its death was owing to the bite of a *cobra de capello*. On dissection, no bone was found separating the two brains. The skulls are preserved in the Hunterian Museum.*

It is barely necessary to remark that frequent instances also occur of an increased number of organs, members, etc.

Of monsters by defect, the most remarkable are those which are born without a head, and are hence styled *acephalous*. These live in the womb, but do not survive after birth, since the function of respiration cannot be performed. To this class also belong those which are destitute of lungs, of one or more organs of sense, etc.†

The defects of the third class are seldom discovered until after death, as they are commonly internal. They are hence seldom the subject of inquiry in legal medicine. But the most remarkable instances of this nature are those in which the rudiments or parts of a foetus have been discovered.‡

survived three weeks and died of dysentery,—one five minutes after the other. (Transylvania Journal, vol. viii. p. 114.)

The Siamese Twins belong to this division. In November, 1833, two children were born at Newport, Kentucky, formed exactly like the Siamese Twins. The mother had never seen these, but they were exhibited in the town, about the time she was impregnated, and she had seen wood-cuts of them. These foetuses are now in the cabinet of the Medical College of Ohio. (Western Medical Gazette, vol. i. p. 289.)

* Philosophical Transactions, vol. lxxx. p. 296, and vol. lxxxix. p. 28.

† Edinburgh Medico-Chirurgical Transactions, vol. ii. p. 39. Case by Dr. Hastings, in which the upper and lower extremities were entirely wanting. It lived six months. A curious case of deficiency in the fingers (apparently hereditary) in a whole family, is related in Edinburgh Medical and Surgical Journal, vol. iv. p. 252.

‡ The following are instances of this nature: A female, named *Amider Bissieu*, in France, at whose death, at the age of fourteen, a foetus was found in the abdomen. (Edinburgh Medical and Surgical Journal, vol. i. p. 376.) This case appears to have been recently revived, and is related by

After this exposition of the condition in which monsters are generally born, we shall be enabled to apply the laws of various countries relating to them.

As monsters by excess are *viable*, or capable of living, so, by the law of France, as already quoted, they are capable of inheriting. Those by defect, and particularly the acephalous, are to be considered as still-born, incapable of living;* and this opinion must be enforced in proportion to the importance of the organs that are wanting. Concerning the last class, there can seldom be any controversy, as the malconformation is ordinarily not discovered until after death.

The English law is thus stated by Blackstone: "A monster which hath not the shape of mankind, but in any part evidently bears the resemblance of the brute creation, hath no inheritable blood, and cannot be heir to any land, albeit it be

M. Breschet. (*Medico-Chirurgical Review*, vol. v. p. 180.) A child aged nine months, examined by G. W. Young, Esq. (*Medico-Chirurgical Transactions*, vol. i. p. 194.) A girl aged two years and a half, examined by Dr. Phillips, of Andover. (*Ibid.*, vol. vi. p. 124.) In the London Medical Repository, (vol. iv. p. 404,) there is a reference to three other cases; and an account is also given of a fœtus found by Mr. Highmore, in the abdomen of a young man who died in 1814, aged sixteen years, at Sherborne, in Dorsetshire. A case is also mentioned as occurring in Austria, in 1812. It is related by Prochaska. (*London Medical Repository*, vol. vi. p. 300.) A child at Brannau, in Austria, in 1825. (*Chapman's Journal*, N. S., vol. v. p. 142.) A case in Hanover, from Graefe's *Journal*. (*Lancet*, vol. xii. p. 454.)

Among American cases, I may mention that of Dr. Gaither, occurring in Kentucky. A female child died in 1809, at the age of two years and nine months. A fœtus was found in the abdomen. (*New York Medical Repository*, vol. xiii. p. 1; *Coxe's Medical Museum*, vol. vi. p. 193; *New York Medical and Philosophical Journal and Review*, vol. i. p. 170.) A case by Dr. Curtis, in Tompkins County, New York. Child four years old. (*New York Medical and Physical Journal*, vol. v. p. 202; *New England Journal*, vol. xv. p. 32.)

* There are, however, instances in which acephalous monsters have lived for a short time. Mr. Lawrence mentions one, which, although deficient in brain and cranium, was perfectly formed in all its other parts, and lived four days. Another is mentioned as occurring in Italy, in 1831. It lived eleven hours. (*Lancet*, N. S., vol. xi. p. 570.) Some valuable physiological remarks on these productions may be found in the *Edinburgh Medical and Surgical Journal*, vol. xi. p. 351.)

brought forth in marriage; but although it hath deformity in any part of its body, yet if it hath human shape, it may be an heir." This, he adds, is a very ancient rule in the law of England, and observes that "the Roman law agrees with our own in excluding such births from succession, yet accounts them, however, children in some respects, where the parents, or at least the father, could reap any advantage thereby, esteeming them the misfortune, rather than the fault of that parent. But our law will not admit a birth of this kind to be such an issue as shall entitle the husband to be tenant by the curtesy, because it is not capable of inheriting."*

As there are instances in which the issue should be male in order to inherit, it will be proper to repeat a caution already given—not to mistake the enlarged state of the clitoris, which is very common at birth, for male organs. Foderé mentions instances where females, in consequence of this, have been inscribed in the baptismal registers as males, and in one case the individual was called out under the conscription law.†

* Blackstone, vol. ii. p. 246.

† Foderé, vol. ii. 179. M. Velpeau presented to the Academy of Sciences in Paris, May 25th, 1846, in behalf of Dr. Gorre, physician at Boulogne, the following notice of a monstrous child:—

It was born at Quinta de Corveiros, in the kingdom of the Algarves, on the 5th of September, 1845. The parents are perfectly well formed and in good health. The mother, aged twenty-two years, had previously given birth to two well-formed children, and during her pregnancy with this, had suffered no injury, nor experienced any violent mental uneasiness; the delivery also was not painful, and was accomplished at the regular period of nine months.

The child, now in its eighth month, is in perfect health. Its head, trunk, and arms are perfectly natural, and well developed. But it has a third leg, proceeding from behind, directly on the median line, so that it is scarcely seen when the child lays on its back. This supernumerary member is of equal length with the others, and the foot is furnished with ten toes.

In front, there is a double penis, separated at their bases about four centimetres, (about an inch and a half.) There is a double scrotum corresponding, each of which contains a single testicle. Each penis has its urethral canal, but these would seem to communicate with but one bladder; at all events, when urine is discharged, it proceeds in equal quantity from both orifices. (*Comptes Rendus*, vol. xxii. p. 878.)

If extra-uterine foetuses are brought forth alive, I presume the provisions which are in force respecting those extracted by the Cæsarean operation would apply.*

* New England Med. Journal, vol. viii. pp. 118 and 403, by Dr. Delisle, of Paris, and Mr. King, of South Carolina. In both, extra foetuses are stated to have been extracted by cutting through the vagina. The first lived three-quarters of an hour, and the second seems to have survived at the time the narrative was written.

CHAPTER VIII.

INFANTICIDE.

BY JOHN B. BECK, M.D., ETC., OF NEW YORK.

PART I.—History of Infanticide, as it has prevailed in various nations, ancient and modern. PART II.—Fœticide, or criminal abortion.—The period of gestation when a child ought to be considered as alive.—Signs of fœticide deduced from an examination of the female.—Where the death of the female follows the abortion.—Anatomical examination of the parts after death. Hydatids and moles considered as occasioning all these signs.—Signs of fœticide deduced from an examination of the substance expelled from the female.—Modes in which fœticide is perpetrated.—Involuntary causes of abortion.—Circumstantial evidence.—Murder of the child after it is born alive.—Of the age of the child.—Of the child born alive without respiring.—Of the child born alive and respiring.—Proofs of the latter.—1. Proofs drawn from the respiratory organs.—Configuration and size of the thorax—situation of the lungs—their volume—their shape—their consistency or density—their absolute weight.—The static test.—Ploucquet's test.—The specific gravity of the lungs.—The hydrostatic test.—Consideration of objections to it.—Rules for applying the hydrostatic test.—2. Proofs drawn from the circulation.—Difference between the blood of the fœtus and of the child after respiration.—Peculiarities in the organs of circulation before and after respiration—the foramen ovale—the ductus arteriosus—the ductus venosus—the umbilical vessels—the cord.—3. Proofs drawn from the abdominal organs—the liver—the intestines—the bladder.—Consideration of the general objection to these proofs, that a child may respire and yet may die before it is fully born.—General inferences in relation to the foregoing proofs.—Modes of perpetrating infanticide.—Accidental modes in which a child's life may be lost.—Congenital malformations.—Congenital diseases.—Circumstantial evidence.—Method of conducting examinations in cases of infanticide.—Cases and illustrations. PART III.—Of infanticide in its relations to medical police.—Laws against it in different nations.—Foundling hospitals.—List of American and British cases of infanticide.

PART I.

Of the history of Infanticide, as it has prevailed in different nations, ancient and modern.

IT is a fact no less melancholy than astonishing, that a practice so unnatural as that of infanticide should ever have

prevailed to any extent. Its existence might have been supposed possible in those unhappy regions of our earth where untutored passion and brutal instinct reign triumphant over reason and morality; but that the fairest portions of society, where genius, science, and refinement had taken up their abode, should have been disgraced by a crime so disgusting, is one of those anomalies in the history of human feeling and conduct which irresistibly prove how perfectly arbitrary and undefined are the laws of justice and humanity, when unguided by the principles of true religion. The fact, however, is not more astonishing than true. A slight review of its history will show us that this practice prevailed in almost all the ancient nations, and that it is not even yet blotted from the list of human crimes.

The laws of Moses are silent on the subject of infanticide; and from this circumstance we should be led to conclude that the crime was unknown among the Jews at that period of their history, and, therefore, that any positive prohibition of it was considered unnecessary. The penal code of the Jews is so very minute on the subject of murder in general, considers it so atrocious a crime, and denounces such terrible punishments against the perpetrators of it, that it is wholly incredible that the murder of infants would have been countenanced by their illustrious legislator. This conclusion is further confirmed by the considerations that barrenness was esteemed one of the greatest misfortunes which could befall a Jewish woman, and that the Jews were all desirous of a progeny, because each cherished the hope that the Messiah might be numbered among his descendants. These facts would seem to prove that every inducement was held out for the preservation of children, and none to countenance their destruction.* Tacitus, in describing the manners of the Jews of his day, says: "To encourage their own internal population, is a great object of their policy. No man is allowed to put his children to

* "Abortion and infanticide were not specially forbidden, but unknown among the Jews. Josephus, appealing in honest pride to the practice of his countrymen, reproaches other nations with these cruelties." (Milman's *History of the Jews*, vol. i. p. 107; Harper's edition.)

death.”* At one period of their history, however melancholy to relate, when they had become contaminated by their intercourse with their idolatrous neighbors, the Canaanites, they fell into the practice of offering up in sacrifice their new-born children to the idol Molech. One of their kings, Manasseh, set them the example by the sacrifice of his own son.† By a subsequent king, Josiah, distinguished for his piety as Manasseh had been for his wickedness, this horrid practice was suppressed.‡ With an obstinacy, however, peculiar to them, they again relapsed into the practice, notwithstanding the awful denunciations of the Almighty against the crime.§ Even at so late a period as the times of Jeremiah and Ezekiel, who wrote in the beginning of the Babylonish captivity, the practice is described as being prevalent.|| The place where these sacrifices were generally made was called *Tophet*, a valley east of Jerusalem.

That the *Canaanites* sacrificed their offspring to their gods, and especially to Molech, is abundantly evident from numerous passages in the Old Testament. The Jews do not appear to have had any particular form of idolatry of their own. They generally borrowed it from the nations with whom they associated, and when they are spoken of as having fallen into this species of idolatry, (the destruction of their offspring,) it is referred directly to their intercourse with the Canaanites.¶ Besides this, it is positively stated that for this, together with other abominations, the Canaanites were driven out of their land.**

Among the *Egyptians*, generally speaking, infants appear to have been treated with much humanity; yet instances are not wanting of the greatest (at least intended) cruelty toward them. A memorable one is to be met with in the commission given by Pharaoh to the Hebrew midwives, to murder all the male offspring of the Jews, for the purpose of stopping the in-

* Tacitus, translated by Arthur Murphy, Esq., vol. v. pp. 8, 9; Hist., book v. chapter v.

† 2 Kings, xxi. 6. ‡ 2 Kings, xxiii. 10. § Leviticus, xx. 1.

|| Jeremiah, xix. 5; xxxii. 35; Ezekiel, xvi. 20, 21; xxiii. 37, 39.

¶ Psalm, cvi. 35, 38.

** Deuteronomy, xviii. 9, 10, 12.

crease of their numbers.* Their own children, however, were treated with great tenderness, and they are on this account commended by some of the writers of other countries. Strabo, in particular, speaks in praise of them in this respect.†

Although not addicted to infanticide in the ordinary acceptation of the term, or to the exposure of new-born infants, the sacrifice of children among the *Phœnicians* formed a part of their religion, and was carried to the most barbarous extent. The deity principally worshipped by them was Saturn, supposed to be the same as the Molech of the Canaanites, and the ceremonies appear to have been very much the same among the two people. The children were offered up by being burnt in a brazen statue of the idol, the cries of the unhappy victims being drowned by the uninterrupted noise of drums and trumpets. To add to the horror of the spectacle, parents were not merely present to witness the impious proceeding, but are said to have been obliged to do so without betraying emotion, in order to render the offering acceptable to the god.‡ The *Carthaginians*, who were colonists of the Phœnicians, retained the same revolting practice.§ In times of peace, the offspring of slaves were generally substituted, but when pestilence prevailed, or the public tranquillity was disturbed by war, the

* Exodus, chapter i. 15, 16, 17.

† Strabo, lib. xvii. A History of Inventions and Discoveries, by John Beckman, Professor of Economy in the University of Gottingen. Translated by Wm. Johnston, vol. iv. p. 430; London. "The population of Egypt was encouraged by many salutary laws. The exposing of children was restrained by the severest penalties. A man was obliged to rear and educate not only the children born to him in the state of marriage, but to acknowledge for legitimate, and maintain all the children he had by his slaves or concubines. Homicide was punished with death, even when committed on a slave." (Universal History, from the creation of the world to the decease of George III., 1820, by Hon. A. F. Tytler and Rev. Ed. Nares, D.D., vol. vi. p. 68; N. Y. edition.)

‡ Rollin's Ancient History, vol. i. p. 29; New York edition.

§ Plutarch, in his Tract on Superstition, alludes to this practice of the Carthaginians, and describes it particularly. (Plutarch's Morals, part 2.) By Minucius Felix it is also noticed. "Merito ei (Saturno) non nullis Africæ partibus a parentibus infantes immolabantur, blanditiis et osculo comprimente vagitum, ne flebilis hostia immoletur." (Octav. Minucii Felicis, cap. xxx. 3.)

victims were always selected from the best families. History records a melancholy instance of the superstition and cruelty of these deluded people. It is related that on their defeat by Agathocles, king of Sicily, (attributing it to some negligence in the selection of the victims which had been offered,) in order to atone for the past, they immolated, at one time, two hundred of the sons of their nobility. This horrid custom is thus noted by Silius Italicus:—

“Mos fuit in populis, quos convenit Advena Dido,
 Poscere cæde deos veniam, ac flagrantibus aris
 (Infandum dictu) parvos imponere natos.”—*Lib. iv.**

So monstrous and inveterate had this practice become among these people, that it attracted the attention of other nations. When Gelo, king of Sicily, conquered them, by the treaty which he made with them, he obliged them to renounce it.† It does not appear, however, that this was observed, and the practice is said to have been continued until the proconsulate of Tiberius, who caused the priests of Saturn to be hung on trees around their temples.‡

The *Ancient Persians*, according to Herodotus, were in the habit of burying children alive. “This custom,” he says, “of burying children alive, is common in Persia, and I have been informed that Amestris, the wife of Xerxes, when she was of an advanced age, commanded fourteen children of illustrious birth to be interred alive, in honor of that deity who, as they suppose, exists under the earth.”§ That the exposure or destruction of new-born children was not, however, a common

* Caii Silii Italici Punicorum libri septemdecim, lib. iv. 765; Goettingæ, 1798, vol. i. p. 324.

† Rollin's *Ancient History*, vol. i. p. 29; New York edition.

‡ “Infants have been sacrificed to Saturn publicly in Africa, even to the proconsulship of Tiberius, who devoted the very trees about Saturn's temple to be gibbets for his priests, as accomplices in the murder, for contributing the protection of their shadow to such wicked practices. For the truth of this, I appeal to the militia of my own country, who served the proconsul in the execution of this order. But these abominations are continued to this day in private.” “The apologetic of Quintus Septimus Florens Tertullianus, in behalf of the Christians.” (Reeves' *Apologies*, vol. i. pp. 187, 188.)

§ Herodotus, translated by Rev. Wm. Beloe, vol. iii. p. 148.

practice among these people, would seem evident from a remark made by the same author in another place. "Next to valor in the field, a man is esteemed according to the number of his offspring; to him who has the greatest number of children, the king every year sends presents; their national strength depending, as they suppose, on their numbers."* Although, therefore, it would seem not to have been a general practice among the Persians, yet the reigning power unquestionably exercised the right of life and death whenever he saw fit, with perfect impunity. Besides the fact just related, there is another illustrating this, connected with the history of an illustrious character in Persian story. I mean *Cyrus*, who was ordered to be destroyed by his grandfather, Astyages, as soon as he was born, and whose life was only saved by the humanity of the agents employed to perpetrate the deed.†

In most of the *Grecian States*, infanticide was not merely permitted, but actually enforced by law. The Spartan law-giver expressly ordained, that every child that was born should be examined by the ancient men of the tribe, and that if found weak or deformed, it should be thrown into a deep cavern at the foot of Mount Taygetus, called *Apothetæ*, "concluding that its life could be of no advantage either to itself or to the public, since nature had not given it at first any strength or goodness of constitution."‡ This practice was not, however, upheld merely by the sanction of law; it was defended by the ablest men in Greece. Aristotle, in his work on government, enjoins the exposure of children that are naturally feeble and deformed, in order to prevent an excess of population. He adds, "if this idea be repugnant to the character of the nation, fix at least the number of children in each family; and if the parents transgress the law, let it be ordained that the mother shall destroy the fruit of her body before it shall have received the principles of life and sensation."§ The mild Plato also justifies this practice. In his

* Beloe's Herodotus, vol. i. p. 122.

† For the interesting details of this history, see Beloe's Herodotus, vol. i. p. 105.

‡ Plutarch's Lives, translated by Langhorne, vol. i. p. 142.

§ Travels of Anacharsis, vol. v. p. 270.

Republic, he directs that "children born with any deformity, shall be removed and concealed in some obscure retreat."*

With such sanctions of law and philosophy, it is by no means to be wondered at that infant life should be held very cheap among the Greeks, and that the practice of exposing and destroying children should become general. That it was actually so, we have abundant evidence drawn from their own writers. The Grecian poets especially abound with facts and illustrations, showing not merely the prevalence of the practice, but that it was not received with any special abhorrence. The *Ion* of *Euripides*, and the *Œdipus Tyrannus* of *Sophocles*, are both founded on occurrences of this kind.

The objects and modes of exposing their new-born children, among the Greeks, were different. When they simply wanted to get rid of them, and induce some stranger to take them up, they exposed them in public places where they might be seen and attract attention, such as market-places, the public temples, margins of rivers, etc.† They always, too, attached some ornaments to them, either as a temptation to have them taken up, or more probably to identify them in case they should survive. A memorable instance of this is met with in the *Ion* of *Euripides*,‡ already alluded to. When the object was to destroy the child, the places selected were mountains, deserts, etc.

* Travels of Anacharsis, vol. iv. p. 342.

† At Athens, the common place for exposing children was called *Cynosarges*, in the suburbs of the city, at the foot of Mt. Auclasmus, sacred to Hercules, where was a grove and gymnasium. In this place was a tribunal which decided upon the legitimacy of children in doubtful cases. (Lemprière's Classical Dictionary.)

‡ * * * * "To the same cave,

Where by the enamored god she was compressed,
Creusa bore the infant; there for death
Exposed him in a well-compacted ark
Of circular form, observant of the customs
Drawn from her great progenitors."

(Potter's *Euripides: Ion*, v. 21.)

* * * * "What of ornaments she had
She hung around her son, and left him thus
To perish."

(*Ibid.*, v. 33.)

To the rest of Greece, however, there was one noble exception, and that was *Thebes*. By one of her laws, it was expressly forbidden to imitate the other Grecian cities who exposed their children at their birth. Parents in needy circumstances were directed to carry their new-born children to the government, by whom they were given to whoever chose to take the best care of them at the cheapest rate, of whom, in consequence, however, they became slaves for life.*

Among the early *Italian* nations, especially among the *Sabines*, it is said to have been customary in times of danger and distress, "to vow to the deity the sacrifice of everything born during the succeeding spring, provided the calamity under which they were laboring should be removed. This sacrifice comprehended both the human race and domestic animals, and there is little doubt that in many cases the vow was really carried into effect."†

Of all the nations of antiquity, however, the most arbitrary and profligate, in the treatment of their offspring, appear to have been the *Romans*. The Phœnicians and Carthaginians might plead religion as an excuse for these atrocities, the Greeks might urge state necessities in justification of theirs, but the Romans resorted to no such excuse or justification. By law the Roman father was invested with supreme power over the lives and fortunes of his children, and in exposing or destroying them, he exercised nothing but a natural and acknowledged right. As soon as a child was born, the midwife placed it on the ground. If the father did not wish it to be reared, he left it exposed on the ground; if, on the contrary, he wished it to live, he took it up and gave it to the mother or nurse. This act was called "*tollere liberum*," and was considered so essential that it was done under the auspices of a particular deity.‡ According to Dionysius Halicarnassus,

* Anacharsis' Travels, vol. iii. p. 277; Ælian. Hist., lib. xvii. p. 1180; Beckman's History of Inventions, vol. iv. p. 438.

† Greek and Roman Antiquities, by Wm. Smith, LL.D. Edited by Charles Anthon, LL.D., p. 352.

‡ "*Levana*, a goddess at Rome, who presided over the action of the person who took up from the ground a newly-born child after it had been placed

Romulus ordained that all the citizens should bring up all their male children as well as the oldest of the daughters. The younger ones, therefore, might be exposed. Deformed children, also, he permitted to be exposed, but this was not to be done until after they had been exhibited to some of their nearest neighbors, and their consent obtained.* By the law of the Twelve Tables, enacted in the three hundred and first year of Rome, the rights of the Roman father were confirmed. After this, even the slight restrictions which Romulus had imposed upon parents appear to have been removed, and an unqualified jurisdiction surrendered to the father over the lives of his children, even after they had arrived at years of maturity.† Sallust mentions an instance of the latter. “Fuere extra conjurationem, complures, qui ad Catalinam initio perfecti sunt; in hic A. Fulvius, senatoris filius; quem retractum ex itinere, *parens jussit necari*.” (Sallust, Cat. xxxix.) It is hardly to be supposed that the exercise of a right so abhorrent to all the feelings of humanity should at once have risen into general practice. At first, in the simple and more virtuous periods of their history, it was no doubt exercised only under a supposed manifest necessity. As luxury and vice increased in one portion of the community, and with it poverty in another, it came to be practiced on the slightest occasions, and for the basest purposes. Accordingly, we find at one

there by the midwife. This was generally done by the father, and so religiously observed was this ceremony that the legitimacy of a child could be disputed without it.” (Lempriere’s Classical Dictionary.)

* “Primum necessitatem colonis imposuit educandi quicquid esset masculum, et e filiabus primogenitas; nullam autem prolem necari permisit minorem, treennio, nisi siquid mutilum aut *alioque* monstrosus in ipso partu editum. Tales autem foetus exponi a parentibus non vetuit, sed ostensos priusquinque viris e vicinia proximis, si illi quosque exponendos esse censuissent. Si quis contra hanc legem committeret, præter alias multas, etiam dimidiam bonorum partem addixit ærario publico.” Dionysii Halicarnassei scripta quæ extant omnia et Historica et Rhetorica. Francofurdi, 1856, Græce et Latine, Antiq. Romanor., lib. xi. vol. i. p. 88.

† The right of parents over their children, or the patria potestas, as it was called, is thus stated in the Institutes of Justinian, lib. i. tit. 9, p. 22, Cooper’s ed.: “Jus autem potestatis, quod in liberos habemus, proprium est civium Romanorum; nulli enim alii sunt homines, qui talem in liberos habeant potestatem, qualem nos habemus.”

period, and that, too, when the Roman empire was at its highest pitch of grandeur, that the destruction of infant life, in all its various stages, was practiced by high and low, rich and poor. Abortion was perpetrated, and children were exposed,* probably without censure, certainly without punishment. Of this we have the most abundant testimony from their own writers as well as from the Christian fathers. Of the first of these we need nothing more than the graphic accounts left us by Juvenal. In his celebrated satire on women, he speaks of the practice of abortion as common among the fashionable and rich ladies of his day.

Hæ tamen et partus subeunt discrimen, et omnes
Nutricis tolerant, fortuna urgente, labores
Sed jacet aurato vix ulla puerpera lecto;
Tantum artes hujus, tantum medicamina possunt,
Quæ steriles facit, atque homines in ventre necandos
Conduit. (Juvenal: Sat. vi. 476.)†

The Christian writers of the day, in their defences of the Christian religion against the accusations of their enemies, express themselves with heroic boldness in exposing and denouncing the prevalent practices of the Romans.

Justin Martyr says: "But we who are truly Christians, are so far from maintaining any unjust or ungodly opinions, that exposing of infants, which is so much in practice among you, we teach to be a very wicked practice; first, because we see that such children, both girls and boys, are generally all

* The places where children were generally exposed at Rome were two—the *columna lactaria* and the *velabrum*. The first was a pillar, which stood in the market where vegetables were sold. (Beckman on Inventions, vol. iv. p. 434) The *velabrum* was "a marshy piece of ground on the side of the Tiber, between the Aventine, Palatine, and Capitoline hills, which Augustus drained, and where he built houses. The place was frequented as a market, where oil, cheese, and other commodities were exposed to sale." (Lempriere's Classical Dictionary.)

† "Yet these, though poor, the pain of childbed bear,
And without nurses their own infants rear.
You seldom hear of the rich mantle spread
For the babe, born in the great lady's bed.
Such is the power of herbs; such arts they use
To make them barren, or their fruit to lose."

(Dryden's Translation.)

trained up for the service of lust, (for as the ancients bred up these foundlings to feed cows, or goats, or sheep, or grass horses, so, now-a-days, such boys are brought up only to be abused against nature;) and accordingly you have a herd of these women and effeminate men prostitutes in every nation."

* * * * * "And another reason against exposing infants is, that we are afraid they should perish for want of being taken up, and bring us under the guilt of murder."*

Tertullian, in his *Apology*, thus expresses himself: "How many of you," addressing himself to the Roman people, and to the governors of cities and provinces, "might I deservedly charge with infant murder; and not only so, but among the different kinds of death, for choosing some of the cruelest for their own children, such as drowning, or starving with cold or hunger, or exposing to the mercy of dogs; dying by the sword being too sweet a death for children, and such as a man would choose to fall by, sooner than by any other ways of violence? But Christians now are so far from homicide, that with them it is utterly unlawful to make away with a child in the womb, when nature is in deliberation about the man; for to kill a child before it is born, is to commit murder by way of advance; and there is no difference whether you destroy a child in its formation, or after it is formed and delivered; for we Christians look upon him as a man who is one in embryo; for he is a being like the fruit in blossom, and in a little time would have been a perfect man, had nature met with no disturbance."†

To the same effect is the testimony of Minutius Felix. "I see you exposing your infants to wild beasts and birds, or strangling them after the most miserable manner. Nay, some of you will not give them the liberty to be born, but by cruel potions procure abortion, and smother the hopeful beginnings

* The First *Apology* of St. Justin for the Christians, to Antoninus Pius; see *Apologies* of Justin Martyr, Tertullian, and Minutius Felix, in defence of the Christian Religion, etc., by William Reeves, M.A., vol. i. pp. 53, 55; London, 1716.

† Reeves' *Apologies*, vol. ii. p. 190.

of what would come to be a man, in his mother's womb." "And these, forsooth, are the lessons which you learn from your gods; for Saturn exposed not his children, but he ate them."*

Such was the practice of ancient Rome from her first origin down to the time of Constantine the Great. During the days of her greatest political grandeur, it was carried to the highest excess; and while she was boasting of her refinement, and casting the opprobrious epithet of barbarian on all around her, she was guilty of the basest profligacy and the most hardened cruelty. Philosophy did nothing to arrest it. Indeed, her sages, like those of Greece, defended and apologized for it. Pliny the elder excuses it upon the ground of its being necessary to preserve the population within proper bounds: "*Quoniam aliquarum fecunditas plena liberi tali venia indiget.*" (Lib. xxix. c. 4.)

Christianity first opposed a barrier to the desolations of this crime; her mild and humane spirit could not but discountenance it; and accordingly it animated all who were arrayed under her peaceful banners, to exert their energies in arresting its progress. As the Christian religion began to exercise its influence over the imperial power, edicts were passed with the view of suppressing this horrid crime. By Constantine the Great two decrees were issued—one for Italy, in the year 315, the other for Africa, in the year 322. By these it was ordained that in order to prevent the exposure, sale, or murder of new-born children, those who were too poor to rear them should receive assistance from the public treasury, in the way of food, clothing, and other necessities. At the same time, it was ordered that a severe punishment be inflicted on a cruel father. These edicts are supposed to have been issued under the advice of the celebrated Lactantius.†

* "*Vos enim video procreatos filios nunc feris et avibus exponere, nunc adstrangulatos misero mortis genere elidere. Sunt quæ in ipsis visceribus, medicaminibus epotis, originem futuri hominis extinguant.*" "*Et hæc utique de deorum vestrorum disciplina descendunt; nam Saturnus filios suos non exposuit, sed voravit.*" (Minucii Felicis Octavius, cap. xxx. 3, p. 188; Longosalessæ, 1773.)

† Beckman's History of Inventions, vol. iv. p. 439.

This was the first time that the authority of the government had interposed to arrest this crime; and it is not to be supposed that a custom which had become so familiar to all the habits and feelings of the Roman people would be immediately suppressed; accordingly, we find that it still continued to prevail, though in a less degree, until the end of the fourth century, when it was finally exterminated by the emperors Valentinian, Valens, and Gratian.*

In everything relating to the treatment of children, the *ancient Germans* exhibited a noble contrast to the profligate Romans. From the moment of birth, they were treated as free human beings. The mothers reared their infants at their own breast; they were not left to the care of nurses and servants; and to destroy them was looked upon as infamous. Tacitus, in his account of the manners of the Germans, says of them, that "to set limits to population by rearing up only a certain number of children and destroying the rest, is accounted a flagitious crime." And he adds, "among the savages of Germany virtuous manners operate more than good laws in other countries."†

Even the *Goths*, barbarians as they are commonly called, entertained juster and more humane notions in relation to the value of infant life than the Romans, for although infanticide

* Gibbon thus expresses himself in relation to this practice among the Romans: "But the exposition of children was the prevailing and stubborn vice of antiquity; it was sometimes practiced, often permitted, almost always practiced with impunity, by the nations who never entertained the Roman ideas of parental power; and the dramatic poets, who appeal to the human heart, represent with indifference a popular custom which was palliated by the motives of economy and compassion. If the father could subdue his own feelings, he might escape, though not the censure, at least the chastisement of the laws. And the Roman empire was stained with the blood of infants, till such murders were included by Valentinian and his colleagues in the letter and spirit of the Cornelian law." (The History of the Decline and Fall of the Roman Empire, by Edward Gibbon, Esq., vol. iii. p. 186, Lond. ed.)

† De Moribus Germ. xix., Murphy's Tacitus, vol. v. p. 112, Eng. edit., 1831. The Germans were called *savages* by the Romans. But let any one read the account of the manners and practices of the Roman women, as given by Juvenal, and then compare it with the description of the German women, by Tacitus, (they wrote in the same century,) and I think he will not hesitate in deciding that the term more justly belongs to the Romans.

prevailed among some of them, yet it received no sanction from their laws. Chindaswinthus, one of the kings of the Visigoths, describes the procuring of abortion, as well as the murder of children, as practices prevalent in the provinces, but denounces severe penalties against the perpetrators of these crimes.* In the code of the Visigoths (*Leges Visigothorum*) there are express laws against these offences. "It was death to give a woman drugs to procure abortion, and equally criminal if that effect should follow from a stroke or any willful injury. Child murder was punished with the death of the parent." (Lib. vi. tit. iii.)†

But infanticide was not confined to the ancients. It has descended to modern nations, and at the present day disgraces eastern and southern Asia.

The *Chinese* are notorious for the exposure and murder of their children. According to Mr. Barrow, the number of children exposed in Peking alone amounts to nine thousand annually. No law exists to prevent it; on the contrary, it appears rather to be encouraged, inasmuch as persons are employed by the police of the city to go through the different streets every morning, in carts, to pick up all the children that may have been thrown out during the night. "No inquiries are made; but the bodies are carried to a common pit without the walls of the city, into which all, whether dead or living, are promiscuously thrown."‡ The practice is not confined to the capital; it prevails also in other parts of the country. It is calculated that the number of infants destroyed in Peking, is about equal to that of all the rest of the empire.§ Almost all those that are exposed are females. The causes assigned for its prevalence are extreme poverty, arising from an overgrowth of population, frequent and dreadful famines springing from the same cause, the natural cold-

* On the history of the effects of religion on mankind, by Rev. Ed. Ryan, p. 110.

† Universal History, by Tytler and Nares, vol. iii. pp. 205, 206.

‡ Travels in China, etc., by John Barrow, Esq., p. 113, Amer. edition.

§ Ibid., p. 114; also De Pauw's Philosophical Dissertation on the Egyptians and Chinese. (Quarterly Review, vol. ii. p. 255.)

ness of affection in the Chinese, together with the sanction of custom, and the want of any law forbidding it. Mr. Ellis* and Dr. Abel,† both of whom visited China in company with the embassy of Lord Amherst, in 1816, express strong doubts with regard to the frequency of infanticide in that country. And more recently, Mr. Davis‡ does the same. For the sake of humanity, it is to be hoped that these doubts are founded in truth. Whether the estimate of Barrow and other travelers be too large or not, it is impossible to say. The general prevalence of the crime, however, is unquestionable; and recent travelers speak of it as still existing in all its horrid deformity. "At the beach of Amoy," says Mr. Gutzlaff, "we were shocked at the spectacle of a pretty new-born babe, which shortly before had been killed. We asked some of the by-standers what this meant; they answered with indifference, 'it is only a girl.'" This same traveler says: "It is a general custom among them to drown a large proportion of the new-born female children. This unnatural crime is so common among them, that it is perpetrated without any feeling, and even in a laughing mood; and to ask a man of any distinction whether he has daughters, is a mark of great rudeness. Neither the government, nor the moral sayings of their sages, have put a stop to this nefarious custom."§ The same writer, in another work, makes the following statement: "Infanticide, of which the husbands are the only perpetrators, is not uncommon; but female children only are murdered, and then immediately after their birth. This horrible crime meets with no punishment from the laws of the country: a father being the sovereign lord of his children, he may extinguish life whenever he perceives or pretends that a prolongation of it

* Journal of the proceedings of the late embassy to China, etc., by Henry Ellis, third commissioner of the embassy, vol. ii. p. 209; London, 1817.

† Narrative of a Journey in the Interior of China, etc. in the years 1816 and 1817, by Clarke Abel, F.R.S., pp. 234, 235; London, 1818.

‡ The Chinese: a general description of the Empire of China and its Inhabitants, by John Francis Davis, F.R.S., etc., vol. i. p. 249, Am. ed.

§ Journal of Three Voyages along the Coast of China, in 1831, 1832, and 1833; with notices of Siam, Corea, and the Loo-Choo Islands, by Rev. Charles Gutzlaff; p. 142; American edition.

would only aggravate the sufferings of his offspring.”* Another late traveler says: “In some provinces, not one out of three is suffered to live; and in others, as the writer has been informed by the Chinese from those places, the difference between the male and female population is as ten to one.”† Medhurst confirms the general prevalence of this practice. It is confined almost entirely to female children. It has nothing to do with any religious system or creed; it is not taught “either by Confucianism, Taoism, or Buddhism.” The principal cause is poverty and the desire to get rid of the trouble and expense of bringing up female children, who are considered as comparatively useless beings. Hence it prevails most in the capital and in the southern provinces, where the population is beyond the powers of the soil to produce sufficient subsistence.‡

A still more recent traveler in China, the Rev. Mr. Smith, gives some interesting statements in relation to infanticide. In Canton, the crime is comparatively infrequent, owing, as is supposed, to the Foundling Hospital established there and superintended by the government. This is the only institution of the kind in the province, and is capable of holding 1000 infants. It is estimated that 5000 female children, the offspring of the poor, are annually taken to this establishment. In a visit to the suburbs of Canton, Mr. Smith was told that “taking a circle of the radius of ten miles around the spot where he was, it was computed that the number of infanticides did not exceed one hundred a year. The practice was entirely confined to the poor, and originated in the difficulty of rearing their female offspring.” In the Fokeen province, on the other hand, female infanticides were very common. At a place about five days’ journey above Canton, there were computed to be 500 or 600 female children destroyed in

* A Sketch of Chinese History, Ancient and Modern, etc., by Rev. Charles Gutzlaff; vol. i. p. 46; American edition, 1834.

† See a Journal of a Residence in China, etc., from 1829 to 1833, by Rev. David Abeel, pp. 128, 158. New York, 1834.

‡ China: its state and prospects, with especial reference to the spread of the gospel, etc., by W. H. Medhurst, of the London Missionary Society; pp. 45, 46, 47. Boston, 1838.

a month.* In Amoy the crime seems to be very prevalent. About one-half of the female children were said to be destroyed. This, too, was principally among the poor, and the number in a family was generally in proportion to the poverty of the individual. Out of six daughters, some murdered three, others four, and others five. The child was destroyed immediately after birth. The modes were various—either by drowning in a vessel of water, pinching the throat, applying a wet cloth over the mouth, or choking by a few grains of rice placed in the mouth of the infant.† The causes of the prevalence of the crime among the Chinese, according to Mr. Smith, are to be sought for in the extreme poverty in certain districts, and the little importance attached to females in the social constitution.

Among the *Japanese*, it is said, by one authority, that the poor people destroy their children at birth, when they are weakly or deformed. Although forbidden by the laws under severe penalties, the practice seems to be winked at by government, and the parents are very seldom called to account for these murders. The crime of producing abortion, too, is said to be very frequent, and some of the priests are charged with making a trade of selling decoctions of certain woods for this purpose.‡ It does not appear, however, that these people are justly chargeable with the general crime of exposing or destroying their children. In this respect they certainly differ greatly from their neighbors, the Chinese. I have looked into Kœmpfer,§ Thunberg, and others, and I do not find anything to justify the opinion that they are addicted to this crime—at any rate, it is not a national crime. They appear to treat their children with great kindness and attention. How different they must be from the Chinese, is evident from

* Exploratory visit to the consular cities of China, in 1844, 1845, and 1846, by Rev. Geo. Smith, M.A.; vol. i. p. 53.

† Ibid., p. 393.

‡ Memoirs of a captivity in Japan, during the years 1811, 1812, and 1813, with observations on the country and the people, by Captain Golownin, of the Russian Navy; second edition; London; vol. iii. p. 222.

§ History of Japan, etc., by E. Kœmpfer, M.D., Physician to the Dutch Embassy to the Emperor's Court; London, 1728; two vols., fol.

a statement of Thunberg, who says: "The more daughters a man has, and the handsomer they are, the richer he esteems himself, it being here the established custom for suitors to make presents to their fathers-in-law before they obtain his daughter."*

Among the *Hindoos*, infanticide presents itself in all its deformities, and its atrocities are beyond description. It has existed among them for at least 2000 years, for Greek and Roman historians notice it, and refer to some of the very places where it is now known to exist.† The number of infantile murders in the provinces of Cutch and Guzerat alone amounted, in 1807, according to the lowest calculation, to 3000 annually; according to another computation, 30,000.‡ Females are almost the only victims. In defence of the practice, they urge the difficulty of rearing female children, the expense attending their education, and the small probability of their ever being married.§ Within a few years, through the benevolent exertions of some of the subjects of Great Britain, it was supposed that infanticide had been completely abolished in many of the provinces. Mr. Duncan, governor of Bombay, Marquis Wellesley, and Col. Walker, were the persons who took the lead in this affair, and whose energy and perseverance it was hoped and asserted had been crowned

* Travels in Europe, Africa, and Asia, made between the years 1770 and 1779, by Charles Thunberg, M.D.; third edition; London; vol. iv. p. 52.

† Christian Researches in Asia, by the Rev. Claudius Buchanan, D.D.; English edition, p. 49. View of the History, Literature, Religion, etc. of the *Hindoos*, by William Ward, D.D., p. 393; American edition. Also, Moor's Hindu Infanticide, etc., Review of the same in London Quarterly Review, vol. vi. p. 210.

‡ Buchanan's Researches in Asia, p. 49; also Moor's Hindu Infanticide, p. 63.

§ The modes of perpetrating the deed are various. Dr. Buchanan states that two are principally prevalent. As soon as it is known to be a female, a piece of opium is put into its mouth; or the umbilical cord is drawn over its face, which, by preventing respiration, destroys it. (Researches in Asia, p. 47; Moor's Hindu Infanticide, pp. 55, 56.) Another mode still more common, however, is to drown the child, as soon as it is born and ascertained to be a female, in a large vessel of milk placed in the room for that purpose. (Moor's Hindu Infanticide, p. 27; Heber's Travels, vol. ii. p. 70; American edition.

with complete success.* It is melancholy to be obliged to state, on the authority of a recent traveler, that the benevolent labors of these gentlemen were attended with only temporary success. Bishop Heber, in his travels in 1824 and 1825, says: "Through the influence of Major Walker, it is certain that many children were spared; and previous to his departure from Guzerat, he received the most affecting compliment which a good man could receive, in being welcomed at the gate of the palace, on some public occasion, by a procession of girls of high rank, who owed their lives to him, and who came to kiss his clothes and throw wreaths of flowers over him as their deliverer and second father. Since that time, however, things have gone on very much in the old train, and the answer made by the chiefs to any remonstrances of the British officers is, 'Pay our daughters' marriage portion and they shall live.' Yet these very men, rather than strike a cow, would submit to the cruelest martyrdom."†

In the *Burman Empire*, infanticide, as a general crime, is unknown. Children are treated with great kindness, both by father and mother, and no distinction is made between males or females. Mr. Malcolm says: "Infanticide, except in very rare cases by unmarried females, is utterly unknown. A widow with children, girls or boys, is much more likely to be sought again in marriage than if she had none. The want of them, on a first marriage, is one of the most frequent causes of polygamy."‡

There is no part of the world, however, in which infanticide prevailed, until very recently, in a form more affecting than it did in some of the *South Sea Islands*. Previously to the conversion of *Otaheite*, now called *Tahiti*, infanticide was

* For a full account of these measures, see "Hindu Infanticide; an account of the measures adopted for suppressing the practice of the systematic murder, by their parents, of female infants: with incidental remarks on other customs peculiar to the natives of India;" edited, with notes and illustrations, by Edward Moor, F.R.S.; London, 1811, 4to. In this volume the report of Lieut.-Col. Walker is particularly interesting.

† Narrative of a Journey in the Upper Provinces of India, etc., by the Right Rev. Reginald Heber, D.D., vol. ii. p. 70; American edition.

‡ Travels in Southeastern Asia, etc. etc., by Howard Malcolm; Boston, seventh edition, 1844, vol. i. p. 189.

so common that, along with other causes, it threatened the complete depopulation of the island. It was found as a common practice when the island was first visited by Captain Cook in 1769;* and just anterior to the introduction of Christianity, according to the most accurate estimates, at least two-thirds of the children born were destroyed.† It appears to have been confined to no rank or class of the community, but to have been universally prevalent. Mr. Ellis, who visited this part of the world in 1817, and resided there for eight years, states that he “did not recollect having met with a female in the island, during the whole period of his residence there, who had been a mother while idolatry prevailed, who had not imbrued her hands in the blood of her offspring.”‡ To the same effect is the testimony of another missionary, who resided many years in the islands of the Pacific, Mr. Williams. “Infanticide,” he says, “did not prevail either at the Navigators or Hervey groups; but the extent to which it was carried at the Tahitian and Society Islands almost exceeds credibility. Generally, I may state,” he adds, “that in the last-mentioned group I never conversed with a female, that had borne children prior to the introduction of Christianity, who had not destroyed some of them, and frequently as many as from five to ten.”§ Females were generally the victims. The effect which this practice had in diminishing the number of inhabitants was astonishing, and affords a striking refutation of the doctrine which is maintained by some, that the practice of destroying children has a direct tendency to augment population. When Cook visited the island he estimated the inhabitants at 200,000. Although this was probably altogether too large, yet it shows that the island at that time must have been quite populous. In less

* Cook's Voyages, vol. ii. pp. 72, 85.

† Turnbull's Voyage Round the World, in 1800, 1802, 1803, and 1804; Polynesian Researches, by William Ellis, vol. i. p. 198; American edition.

‡ Polynesian Researches, vol. i. p. 198.

§ A Narrative of Missionary Enterprises in the South Sea Islands; with remarks upon the natural history of the islands, origin, languages, traditions, and usages of the inhabitants, by John Williams, of the London Missionary Society, p. 499; New York, 1837.

than thirty years after, this terrestrial paradise, blessed with a genial climate and a luxuriant soil, was reduced to some 7000 or 8000 souls. In 1797, Captain Wilson, who went with the first missionaries from England, made the population only about 16,000; and not many years afterwards the missionaries declared it as their opinion that the island did not contain more than 8000 souls.* Mr. Ellis thinks that within the last thirty years the island has never contained fewer inhabitants than this, and he estimates the present number at about 10,000.† It is not to be supposed that this enormous diminution of population is to be attributed solely to the practice of infanticide. Various other causes have doubtless co-operated.‡ That infanticide, however, has had a material effect in repressing the population, is conceded by all those who have visited this island. Besides Tahiti, this horrid practice prevailed in all the rest of those groups of islands known by the names of *Georgian* and *Society* Islands, and to the same extent.§ Among the causes of the prevalence of this crime, there was one, and it appears to have been the principal one, so curious and unique that it deserves a brief notice. This was the existence of an institution which was called the *Areoi Society*. How this association originated is not known. It appears to have been of remote antiquity, and, according to the traditions of the people, was of divine origin. The habits and practices of the members of this society were of the most debasing character. According to Mr. Ellis, who gives the best ac-

* *Polynesian Researches*, vol. i. p. 89.

† Captain Wilkes states that a recent census gives 9000 inhabitants for the population of Tahiti, and he adds, that for the last thirty years the population has been nearly stationary; the births and deaths are now almost exactly in equal numbers. One of the oldest missionaries informed him, that although he saw much change in the character and habits of the people, he could perceive none in their apparent numbers. (*Narrative of the United States Exploring Expedition*, during the years 1838, 1839, 1840, 1841, and 1842, by Charles Wilkes, U. S. N., vol. ii. p. 49.)

‡ *Edinburgh Med. and Surg. Journal*, vol. ii. pp. 284, 290.

§ For interesting notices on this subject, see *Journal of Voyages and Travels*, by the Rev. D. Tyerman and G. Bennet, Esq., vol. i. p. 53, vol. ii. pp. 67, 162, American edition; also *Polynesian Researches*, by W. Ellis, vol. ii. p. 29, etc. etc.

count of this institution, it was made up of "a sort of strolling players and privileged libertines, who spent their days in traveling from island to island, and from one district to another, exhibiting their pantomimes and spreading a moral contagion throughout society."* The resources of the society were ample, and these exhibitions were among the chief sources of amusement to the people. These diversions had their gods, who, according to the ideas of the people, patronized every evil practice perpetrated during such seasons of public festivity. When a person wished to become a member of this society, he was supposed to be inspired to do so by the gods. With this view he assumed the air of a deranged person, and rushed with frantic wildness among the performers, joining in their orgies. After undergoing suitable trials, he was inaugurated as a member. After this, the first act he was directed to perform was *to destroy all his children*, which was always done. This association was held in the highest repute by the chiefs and higher classes, while by the ignorant and vulgar it was looked up to with a species of veneration. Membership was not confined to any particular grade, but was open to all. It is easy to conceive what the influence of such a society must have been upon the rest of the community. Sanctioned, and even ordered, as infanticide was by it, and in obedience too to the will of their gods, the practice was looked upon not merely as not criminal, but perfectly innocent, and accordingly it was resorted to by the whole of the people, either from ambitious or prudential considerations or to get rid of the trouble and expense of rearing their children.

To add to the atrocities of this crime, as practiced by these islanders, the parents or nearest relatives, who generally attended for this very purpose, were the executioners. The modes in which the children were destroyed were various—either by stabbing them with a sharp-pointed piece of bamboo-cane, strangling them by placing the thumbs on the throat, or by stamping upon them. The deed was always perpetrated just before the child was born or immediately after the birth.

* Ellis' *Polynesian Researches*, vol. i. p. 185.

According to Mr. Ellis, if from any cause it was suffered to live ten minutes or half an hour, it was safe.

The Areoi Society appears to have been peculiar to the Georgian and Society Islands; it did not exist among either the Sandwich or Marquesas Islands. It is consoling to state that in the year 1815, immediately after the reception of Christianity became general throughout the Society Islands, this institution, with all its infamous practices, was abolished by common consent, and many of the Areois themselves were converted to Christianity.*

When infanticide was first introduced into these islands, is not known. Mr. Ellis thinks it could not have been practiced so extensively in the earlier periods of their history as it was during the fifty years previous to their being converted to Christianity, otherwise they never could have become so populous as they certainly were long before their discovery.

Among the *Sandwich Islanders*, this crime also prevailed in its most atrocious forms. Sometimes they strangled their children, but more frequently buried them alive. What was peculiar in the barbarity of these people was, that even should a child be spared for a few weeks or months after birth, they had no hesitation in destroying it at any subsequent period; at least two-thirds of the children born were here also sacrificed. The principal cause assigned for the prevalence of this crime among these people was, their excessive indolence, and their dread of the trouble to be encountered in rearing their children. In 1823, Mr. Ellis says, that although not abolished, he believed it to prevail less than it did four or five years before. The king, as well as many of the chiefs, began to consider it as murder, and did everything to discourage the practice. In 1824 it was publicly forbidden, and "if the crime is practiced now," says he, "it is under the same circumstances as secret murder would be perpetrated."†

* Polynesian Researches, by W. Ellis, vol. ii. p. 130.

† Polynesian Researches, vol. iv. p. 240; Stewart's Journal of a residence in the Sandwich Islands, pp. 185, 251. A recent American voyager says that in the Sandwich Islands "infanticide is still practiced, but not to the same extent as formerly, nor is the deed committed openly. At the imminent peril of the mother, children are now destroyed about the fourth or

In the group of islands called the *Kings-mill Islands*, according to Capt. Wilkes, a woman has seldom more than two, and never more than three living children. After the birth of the third, they consider it necessary to prevent the increase of their families, and for this purpose they resort to *systematic abortion*. As soon as a female finds herself pregnant for the third or fourth time, she calls in the aid of a person practiced in the art, to bring about an abortion, which is effected by pressing on the abdomen and back. The operation, although not unattended with much pain and difficulty to the mother, rarely proves fatal. The practice is looked upon without any idea of its criminality, being considered as a necessary means of keeping their families from becoming too large. "The practice of destroying the foetus," it is added, "is universal among the unmarried females, but children are never destroyed after birth."*

In the *Feejee Islands*, according to the same authority, the practice of producing abortion is so prevalent that nearly one-half of those conceived are supposed to be destroyed in this manner; usually by the command of the father, "at whose instance the wife takes herbs which are known to produce this effect. If this does not succeed, the accoucheur is employed to strangle the child, and bring it forth dead."† "It is stated, too, that if through accident or neglect a name should not be given to the child immediately on its birth, it is considered as an outcast, and destroyed by the mother."

Among the natives of the interior of *Ceylon*, when a child is born, an astrologer is consulted to foretell its future fortune; if it should be unhappy, it is carried to the jungle and abandoned, where it is destroyed by cold, or devoured by wild

fifth month of utero-gestation, almost entirely in cases of illegitimacy, and but very rarely after birth. Infanticide has been made a crime by the civil law: and it is hoped that the people will soon feel it to be an offence equally against social and moral rectitude, as well as detrimental to their political condition." (*A Voyage Round the World, in 1835, 1836, and 1837, by W. S. W. Ruschenberger, M.D., 1838.*)

* Narrative of the United States Exploring Expedition, during the years 1838, 1839, 1840, 1841, and 1842, by Charles Wilkes, U. S. N., vol. v. p. 102.

† Ibid., vol. iii. p. 93.

beasts. Generally speaking, all the male children, as well as the first female child, are exempted from this unhappy lot. So common is the destruction of all the rest of the female offspring, that it has been observed, in the district where this practice prevails, that more than one female child is rarely to be found in a family.* The effect of this practice upon the relative proportion of male and female population is very striking. According to the calculation of Mr. Marshall, the females are to the males as 84 to 100, while in England they are as 98·8 to 100.† The only extenuation offered for this crime is the extreme poverty of the people. Bishop Heber, in speaking of the prevalence of infanticide in Ceylon, states that in the last general census in 1821, the number of males exceeded by 20,000 that of females; in one district, there were to every hundred men but fifty-five women; and in those parts where the numbers were equal, the population was almost exclusively Mussulman.‡ The difficulty of marrying their daughters, in a country where to live single is disgraceful, is one of the principal causes, according to Heber, of this unnatural custom.

The natives of *New South Wales* resort to violent and unnatural compression of the body of the mother, in order to procure abortion. This process is called by them *Meebra*, and is resorted to for the purpose of avoiding the trouble of carrying about the child when young, a duty which devolves entirely on the female. As may naturally be supposed, the mother not unfrequently falls a victim to this horrid process. Another practice, still more shocking, prevails, of burying a child with its mother, if she happens to die.§ This practice is justified by them, upon the ground of the difficulty, and even impossibility of nursing and rearing a child under these circumstances.

* Notes on the Medical Topography of the Interior of Ceylon, by Henry Marshall, surgeon to the forces, pp. 22, 33, 37; London, 1821.

† Ibid., p. 33.

‡ Narrative of a Journey through the Upper Provinces of India, with notes upon Ceylon, etc. etc., by the late Right Rev. Reginald Heber, vol. ii. p. 197; American edition.

§ Account of the English Colony of New South Wales, by Lieut.-Col. Collins, of the Royal Marines, pp. 124, 125; Edinburgh Review, vol. ii. p. 34.

Among the *New Zealanders*, infanticide is asserted to be common. When a girl is born, it is said the mother not unfrequently destroys it, "by pressing her finger upon the soft part between the joinings of the skull."*

Among the *Hottentots*, infanticide appears to be a common crime. According to Thunberg, "children are exposed and left to their fate on various occasions; as, for instance, when a woman dies either during her lying-in, or immediately after it, the child in such cases is burned along with the mother, as no one can bring it up among people who have no notion of nurses. If a woman brings forth twins, and thinks herself not able to rear them both, one of them is exposed. If they are both boys, the strongest and most healthy is kept; if one of them is a girl, it is her lot to be exposed, as is likewise the fate of any one that comes a cripple into the world."†

Barrow says that the *Bojesmans* destroy their offspring on various occasions; as, "when they are in want of food, when the father of a child has forsaken its mother, or when obliged to fly from the boors and others, in which case they will strangle them, smother them, cast them away in the desert, or bury them alive."‡

In *Madagascar*, according to a recent account, infanticide presents itself in all its native barbarity. Here, as in some other savage nations, when a child is born, the astrologers are consulted as to its future fortune, and if unfavorable, it is doomed to die. The modes of destruction are various. Sometimes it is exposed in a narrow passage, through which a herd of cattle is furiously driven, and the child thus trodden to death. Sometimes it is suspended by the heels, while its face is held downward in a pan of water until suffocation takes place; while at other times it is buried alive. And all this

* The Library of Entertaining Knowledge, *New Zealanders*, p. 387; Cruise's Journal, p. 290.

† Travels in Europe, Africa, and Asia, made between the years 1770 and 1779, by Charles Peter Thunberg, M.D.; third edition, London, vol. ii. p. 195.

‡ An Account of a Journey in Africa, made in the years 1801 and 1802, to the residence of the Booshuana Nation, etc., by John Barrow, Esq., pp. 378, 391.

systematic murder is perpetrated by the father, or the nearest relative, under the express authority of the queen.*

Among the *Arabians*, before the time of Mohammed, the inhuman practice of burying their daughters alive was general, and the reasons assigned for it were entirely of a prudential character. "Lest they should be reduced to poverty by providing for them, or else to avoid the displeasure and disgrace which would follow if they should happen to be made captives, or to become scandalous by their behavior, the birth of a daughter being, for these reasons, reckoned a great misfortune, and the death of one a great happiness."† The mode of perpetrating the deed was the following: When a woman was about to be delivered, she was brought to the side of a pit dug for that purpose. If the child happened to be a daughter, it was thrown into the pit, but if a son, it was saved. To the honor of Mohammed, this horrid practice was interdicted by him, and in the Koran it is several times alluded to and reprobated. The oath required of those who joined his party, commonly called the "woman's oath," is to this effect: "That they should renounce all idolatry; that they should not steal, nor commit fornication, *nor kill their children*, nor forge calumnies; and that they should obey the prophet in all things that were reasonable."‡

Although thus discountenanced by the Koran, the *Mohammedans* of the present day do not seem to attach any great criminality to infanticide; on the contrary, the very sources of honor and authority among them are polluted by it. Even the palace of the Sultan is constantly stained by the blood of infants. Thornton states that the offspring of the younger princes of the royal family, who are kept in honorable confinement in the palace, are destroyed as soon as they are born.§ And Blacquiere accounts for the smallness of the number of

* Madagascar, Past and Present, by a resident; London Literary Gazette; American Journal of Medical Sciences, vol. xiv. p. 261; 1847.

† The Koran, etc., by George Sale, Preliminary Discourse, vol. i. p. 137; American edition.

‡ Sale's Koran, vol. i. p. 65.

§ The present state of Turkey, etc., by T. Thornton, Esq., vol. i. p. 120.

children belonging to the Bashaw of Tripoli, from the fact of his encouraging his wives to evade their accouchements.* A recent traveler says that the Turkish women, after getting two or three children, or as many as suits their fancy to have, are addicted to procuring miscarriages, at which they or their midwives are exceedingly expert, not producing constitutional injury.†

Dr. Bryce, in speaking of the present state of medicine at Constantinople, says: "Midwifery is almost exclusively practiced by Jewish and Turkish women; and it is worthy of remark, that the obstetric art forms a very small portion of their adroitness or employment. All pretend to possess, and some have become famous and wealthy by their pretensions to certain means, not only to obviate sterility, but also to produce abortion by administration of drugs—a practice avowedly tolerated, and frequently resorted to by Turkish females, both from their dislike to frequent pregnancy, and from command of their lords, when the harem threatens to become too numerous."‡

In *modern Egypt*, nothing is more common than the procuring of abortion. A class of females, well known for their skill, are employed to aid those who consult them in cases of this kind. This practice, which is very ancient, surprises nobody, and a woman aborts with astonishing indifference. In the towns and villages there are individuals who are specially employed in this barbarous business. At Cairo there are Arabian physicians, who, for a great length of time, have followed this infamous trade. Infanticide is rarely made a subject of criminal investigation. When a married woman destroys her new-born infant, in order to bring her to punishment, two eye-witnesses are necessary. If she is convicted, she has to pay a large sum of money as a fine, to her husband, or if she is unable to do this, he has it in his power to imprison

* Letters from the Mediterranean, by E. Blacquiere, Esq., vol. i. p. 90.

† Records of Travels in Turkey, Greece, etc., in the years 1829, 1830, and 1831, by Adolphus Slade, Esq., vol. ii. p. 162; American edition.

‡ Sketch of the State and Practice of Medicine at Constantinople, by C. Bryce, M.D. (Edin. Med. and Surg. Journal, vol. xxxv. pp. 8, 9.)

her. If there are nothing but suspicions, and she persists in denying the crime, she is only obliged to take a certain oath to free herself. When a girl, who may have become pregnant, destroys her child, to exculpate herself from the crime, she has only to liberate a male or a female slave.*

Among the *modern Persians*, although infanticide does not appear to be a national crime, yet the king, as among the ancient Persians, has absolute power over the lives of his subjects, and he not unfrequently exercises it in the destruction of all the children of his harem, when it suits his inclination.†

Even in *Iceland* we find traces of this inhuman crime. The custom appears to have been derived from their Norwegian ancestors, among whom it continued to prevail for nearly one hundred years after it had been abolished in Iceland. It became extinct shortly after the introduction of Christianity into the island, at the end of the tenth century.‡

If we turn our attention from the OLD WORLD, and direct it to the NEW, we shall find this crime presenting itself under forms no less horrible and disgusting.

Among the natives about *Hudson's Bay*, it is common for the women to procure abortion by the use of a certain herb which grows there.§

Among the *Greenlanders*, infanticide is not known, except as an occasional crime. In general, their attachment to their offspring is great. When, however, an infant is so unfortu-

* See a Letter on the State of Legal Medicine in Egypt, by Hamont, Directeur of the Veterinary School of Medicine of Abon-Zabel, in the *Annales d'Hygiène Publique et de Médecine Légale*, vol. x. pp. 202-3.

† Historical and descriptive Account of Persia, by James B. Frazer, Esq., pp. 222, 260; New York edition.

‡ Dr. Holland's Preliminary Dissertation on the History and Literature of Iceland, in Sir G. Mackenzie's Travels in the Island of Iceland, during the summer of the year 1810; Edinburgh, second edition, p. 39.

The practice of exposing children, though exercised, was by no means common among the northern nations. It was chiefly done by the poorest of the people, a rich man incurring much obloquy by so doing. It never happened if the father had taken the child in his arms, or sprinkled it with water. (Muller Island., Hist., p. 146; An Historical and Descriptive Account of Iceland, Greenland, and the Faroe Islands, p. 113.)

§ Ellis' Voyage to Hudson Bay, p. 198.

nate as to lose its mother, and no one can be found to nurse it, it is soon buried alive by the father.*

In *Labrador*, the Moravian missionaries who first landed there found it a prevailing custom to put to death their widows and orphans, not to gratify a natural ferocity of disposition, but merely on account of a supposed inability to provide the means of support for the helpless orphan or the desolate widow of another. By the exertions of the missionaries the practice was arrested.†

Nor were the savages of these inclement regions the only people who were guilty of this horrid crime. The gloomy superstition of the *Mexicans* delighted in human sacrifices, and the altars of their divinities were continually drenched with the blood of infants and of men.‡ The number of these sacrifices has doubtless been exaggerated, but the fact is unquestionable, that thousands of victims poured forth their blood to appease or conciliate their imaginary deities.

The mothers in *California* are described as voluntarily destroying their offspring. Venegas states that the common cause of it was a scarcity of food, and that the practice was put a stop to by the Father *Salva-Tierra*, who ordered a double allowance to be given to women newly delivered.§

Charlevoix describes a race of savages in North America, who make a practice of destroying all infants who are so unfortunate as to lose their mothers before they are weaned, upon the plea that no other female can nurse them properly.||

The *Peruvians*, whom Dr. Robertson eulogizes for the

* The History of Greenland; including an account of the mission carried on by the United Brethren in that country. (From the German of David Crantz, vol. i. pp. 149, 218; London, 1820.)

† Barrow's Account of a Journey in Africa, in 1801 and 1802; Edinburgh Review, vol. viii. p. 438.

‡ Robertson's History of America, vol. iii. p. 325.

§ A Natural and Civil History of California, etc., etc. Translated from the original Spanish of Miguel Venegas, a Mexican Jesuit, published at Madrid, 1758; vol. i. p. 82; London, 1759.

|| Journal d'un Voyage à l'Amerique Septentrionale, par le P. De Charlevoix. A Paris, 1744; vol. iii. p. 368.

mildness of their manners and the benevolent spirit of their religion,* were nevertheless in the habit of sacrificing children. Acosta tells us that in such cases as the sickness of the Inca, or doubtful success in war and other affairs, ten children were sacrificed; and upon the coronation of the Inca, two hundred were offered up. When a Peruvian father was taken sick, he sacrificed his son to *Viriachocha*, (the sun,) beseeching him to accept the life of his child, and to save his own. The same writer, when comparing the Peruvians and Mexicans, describes the former as exceeding the latter in the sacrificing of *children*, while the latter were chiefly addicted to the sacrifice of *men* taken in battle, of whom they murdered an immense number. Robertson endeavors to rescue them from this charge by invalidating the testimony of Acosta. He cannot, however, help confessing that the practice did prevail among "their uncivilized ancestors;" but he adds, "that it was totally abolished by the Incas, and that no human victim was ever offered in any temple of the sun." He admits, moreover, that "in one of their festivals, the Peruvians offered cakes of bread moistened with blood drawn from the arms, the eyebrows, and noses of their children. This rite may have been derived," he says, "from the ancient practice in their uncivilized state, of sacrificing human victims."†

Besides those that have been enumerated, travelers record the names of other tribes and nations inhabiting this vast continent, who murder their children with impunity and without remorse. They tell us of the *Abiponians*, a migratory race, inhabiting the province of Chaco, in Paraguay, among whom mothers have been known to destroy all their children as soon as they were born;‡ and of the *Araucanians*, a powerful nation of Chili, who permit fathers and husbands to kill their children and wives.§

* History of America, vol. iii. p. 335.

† Ibid., p. 429. It is due to the Mexicans and Peruvians to state that they do not appear chargeable with the crime of exposing and wantonly destroying their new-born offspring. Like the Phœnicians, they offered their children in sacrifice to their deities, under mistaken notions of religious duty.

‡ Edinburgh Encyclopedia, art. *Abiponians*.

§ Ibid., art. *America*.

To the honor of our *North American Indians*, it deserves to be mentioned, that they are not known to be guilty of this horrid crime. M. Bossu, who traveled in this country about the middle of the last century, gives many interesting notices in relation to the treatment of children, by the Indians inhabiting the southern and western parts of the United States. Not only did they not destroy their new-born children, but in rearing them they display a degree of tenderness and care not always found among more civilized nations. The care of the father began even during the pregnancy of the mother, and certain articles of food which might be supposed to injure the child were carefully abstained from by the women, who always nursed their own children, never trusting another person with this sacred office. He quaintly adds, "no girls there destroy their own offspring, in order to appear chaste in the eyes of men. The Indian women abhor the Christian girls who fall into that case; they oppose the fiercest wild beasts to them because they take great care of their young."*

Mr. Schoolcraft, in speaking of the *Chippeway Indians*, states that it has been said, that ill-formed children are destroyed by their mothers in their infancy. He adds that "nothing has, however, been observed to confirm this opinion. It is probable individual cases of such barbarity (and those of extreme deformity) have occurred, but there does not appear to prevail any general custom in regard to it. On the contrary, several naturally deformed savages which we have seen, appear to disprove the prevalence of such a custom."† To the same effect are the testimonies of Captain Franklin and Dr. Richardson, both of whom represent infanticide as an exceedingly rare occurrence, and when an occasional instance of it takes place, is looked upon by them as a crime of the greatest magnitude. Dr. Richardson, in his interesting account of

* Travels through that part of North America formerly called Louisiana, by M. Bossu, Captain in the French Marines. Translated from the French, by J. Reinhold Foster, F.A.S., vol. i. p. 295, et passim; London, 1771.

† Narrative Journal of Travels through the Northwestern Regions of the United States, etc., in the year 1820, by Henry R. Schoolcraft; Albany, 1821.

the Cree Indians, in giving their belief in relation to a future state, says that it is a crime which they believe to be punished hereafter. "Women who have been guilty of infanticide, never reach the mountain (the Indian heaven) at all, but are compelled to hover around the seats of their crimes, with branches of trees tied around their legs."*

Although the crime of child-murder is not known among our Indians, yet it must be admitted that the practice of procuring *abortion* is not uncommon, at least among some of the tribes. Mr. Nuttall, in speaking of the *Cherokees*, among whom he traveled, says that "from some cause or other it appears that the women of the *Cherokees* frequently made use of means to promote abortion, which at length became so alarming as to occasion a resort to punishment by whipping."† Major Long, in his account of the *Omayhaw Indians*, says that "abortion is effected, agreeably to the assertions of the squaws, by blows with the clenched hand applied upon the abdomen, or by repeated and violent pressure upon that part, or by rolling on the stump of a tree or other hard body. The pregnant squaw is induced thus to procure abortion in consequence of the jealousy of her husband, or in order to conceal her illicit amours, to which all the married squaws, with but few exceptions, are addicted."‡ More recently, Capt. Wilkes tells us that among the *Carrier Indians*, in the interior of *Oregon*, "abortion is constantly practiced both before and after marriage."§

But it is unnecessary to extend this sketch any further. Enough has been recorded to give a view of the wide-spread desolations of this unnatural crime; certainly too much for the honor of human nature.

* Journey to the Shores of the Polar Sea, in 1819-20-21-22; with a brief account of the Second Journey, in 1825-26-27, by John Franklin, R.N., vol. i. p. 151; London, 1829.

† A Journal of Travels into the Arkansas Territory during the year 1819, etc., by Thomas Nuttall, F.L.S., p. 133; Philadelphia, 1821.

‡ Account of an Expedition from Pittsburg to the Rocky Mountains, performed in the years 1819, etc., by order of John C. Calhoun, Secretary of War, under the command of Major Stephen H. Long, vol. i. p. 238; 1823.

§ Narrative of the United States Exploring Expedition, by Charles Wilkes, U. S. N., vol. v. p. 452.

PART II.

By INFANTICIDE, in its most extensive signification, is understood the criminal destruction of the fœtus in utero, or of the new-born child. It embraces, therefore, two subjects, somewhat distinct, and which require separate discussion.

I. *Of the murder of the fœtus in utero, with an account of its various proofs and modes of perpetration.*

This is usually called *criminal abortion*. Recently the more appropriate and classical term of *fœticide* has been applied to it. In the following essay, these terms will be used indiscriminately.

In every instance in which a reputed case of fœticide becomes the subject of legal investigation, the great points which present themselves are,—

1. Has the fœtus in utero been actually destroyed?
2. Has this been brought about by *criminal means*, or by *accidental and natural causes*?

On these questions the opinion and testimony of the professional witness will be required; and these, therefore, are the subjects which it becomes necessary specially to examine. Before proceeding, however, to the discussion of these points, it is necessary to settle the preliminary question, at what period of gestation is the fœtus endowed with life.

In reviewing the various opinions which have been advanced on this subject at different periods, it will abundantly appear that too often fancy has usurped the prerogative of reason, and idle speculation been substituted in the place of rational investigation. The consequence has been, that doctrines have been promulgated, not only the most erroneous and absurd in their nature, but the most dangerous in their tendencies to the best interests of society.

The ancients were most extravagant in their notions on this subject. They believed that the sentient and vital principle

was not infused into the foetus until some time after conception had taken place. It is not surprising that the exact time at which this is effected, could never be satisfactorily settled by them. According to *Hippocrates*, the male foetus became animated at thirty days after conception, while the female required forty-two.* In another part of his works, he asserts that this does not occur until the perfect organization of the foetus.

The *Stoics* believed that the soul was not united to the body before the act of respiration, and consequently that the foetus was inanimate during the whole period of utero-gestation.† This doctrine prevailed until the reigns of Antoninus and Severus, when it gave way to the more popular sentiments of the sect of the *Academy*, who maintained that the foetus became animated at a certain period of gestation. The *Canon Law* of the Church of Rome distinguishes between the animate and inanimate foetus, and punishes the destruction of the former with the same severity as homicide.‡

Galen considered the animation of the foetus to take place on the fortieth day after conception, at the same time that he supposed the foetus to become organized.§ Others believed shorter periods sufficient, and accordingly three days and seven days respectively had their advocates.|| Another contended that eighty days were requisite for the animation of the female, while only forty were necessary for the male.¶ Others, again, made a distinction between the imperfect embryo and the perfectly formed foetus, and considered abortion of the latter only as a crime deserving the same punishment as homicide; a distinction of which it is justly remarked by a celebrated writer on medical jurisprudence, “ennemie de la morale et de l’humanité, digne de l’ignorance et des préjugés de ses auteurs.”**

* Lib. de Nat. Puer., Num. 10.

† Plutarch's *Morals*, vol. iii. p. 230; London.

‡ *Zacchiæ Quæst. Med. Leg.*, lib. ix. tit. 1, 2, 5, p. 744.

§ *Opera Galeni, de Usu Part.*, lib. xv. cap. v.; Lugduni, 1643.

|| *Zacchiæ*, lib. i. tit. 2, Q. 10, p. 82.

¶ *Ibid.*

** *Foderé*, vol. iv. p. 484.

Amid these discordant sentiments, Zacchias offers himself as a mediator, and proposes sixty days as the limit; and recommends that any one who should cause an abortion after that period, whether of male or female, should be punished for homicide.*

All the foregoing opinions, wholly unsupported either by argument or experiment, might be dismissed without a comment, were it not our duty to point out the evils to which they have given rise. Their direct tendency has been to countenance rather than to discourage the destruction of the foetus, in the earlier stages of pregnancy. On a subject of this nature, it was to be supposed that legal decisions would be influenced in a great measure by the opinions of philosophers and physiologists; and accordingly, while the delusion of the Stoics continued its sway, the law saw nothing very criminal in willful abortion,† as the foetus was considered merely *portio viscerum matris*.‡ And afterwards, when the doctrines of the Academy were prevalent, punishments, very different in the degree of their severity, were inflicted, according as the abortion was supposed to be that of an animate or inanimate foetus.§

In times more modern, an error no less absurd, and attended with consequences equally injurious, has received the sanction not merely of popular belief, but even of the laws of many civilized countries. The error consists in denying to the foetus any vitality until after the time of quickening. The codes of almost every civilized nation have this principle incorporated into them; and accordingly, the punishment which they denounce against abortion, procured after quickening, is much severer than before. The *English law* “considers life not to commence before the infant is able to stir in its mother’s womb;”|| and by a recent law the procuring of abortion, *after quickening*, is punished with death, while the same crime, *anterior to quickening*, is only viewed as felony. In Saxony, in consequence of the disputes of medical men on

* Zacchias, lib. i. tit. 2, Q. 10, p. 83.

† Foderé, vol. iv. p. 382.

‡ Plutarch’s *Morals*, vol. iii. p. 230.

§ Foderé, vol. iv. p. 382.

|| Blackstone, vol. i. p. 129.

this subject, it was formally decided that the foetus might be esteemed alive after the half of pregnancy had gone by.*

The absurdity of the principle upon which these distinctions are founded is of easy demonstration. The foetus, previous to the time of quickening, must be either dead or living. Now, that it is not the former is most evident from neither putrefaction nor decomposition taking place, which would be the consequences of an extinction of the vital principle.† To say that the connection with the mother prevents this, is wholly untenable; facts are opposed to it. Foetuses do actually die in the uterus before quickening, and then all the signs of death are present. The embryo, therefore, before that crisis, must be in a state different from that of death, and this can be no other than life.

But if the foetus enjoys life at so early a period, it may be asked, why no indications of it are given before the time at which quickening generally takes place? To this it may be answered, that the absence of any consciousness on the part of the mother, relative to the motions of the child, is no proof whatever that such motions do not exist. It is a well-known fact, that in the earlier part of pregnancy the quantity of the liquor amnii is much greater, in proportion to the size of the foetus, than at subsequent periods. Is it not, therefore, rational to suppose that the embryo may at first float in the waters without the mother being conscious of its movements, but that afterwards, when it has increased in bulk, and the waters are diminished in proportion, it should make distinct and perceptible impressions upon the uterus? Besides, it should not be forgotten that foetal life at first must of necessity be extremely feeble, and therefore it ought not to be considered strange that muscular action should also be proportionably weak.

* Specimen Juridicum Inaugurale, Auctore Van Visvliet, p. 46; Lugduni Batavorum, 1760.

† Some very curious and interesting cases are recorded in which the dead foetus has been retained for a certain period in the uterus without undergoing actual decomposition. See a case by J. G. Porter, M.D., in *American Journal of Med. Sciences*, vol. xvii. p. 347, and another by the editor of the same work, Dr. Hays, vol. xx. p. 535. These, however, are exceptions to a general rule, and do not invalidate the reasoning in the text.

But granting, for the sake of argument, that the foetus does not stir previously to quickening, what does the whole objection amount to? Why, only that one evidence of vitality, viz., motion, is wanting; and we need not be told that this sign is not essential to the existence of life.

Indeed, no other doctrine appears to be consonant with reason or physiology, but that which admits the embryo to possess vitality from the very moment of conception.

If physiology and reason justify the position just laid down, we must consider those laws which exempt from punishment the crime of producing abortion at an early period of gestation, as immoral and unjust. They tempt to the perpetration of the same crime at one time, which at another they punish with death. In the language of the admirable PERCIVAL, "to extinguish the first spark of life is a crime of the same nature, both against our Maker and society, as to destroy an infant, a child, or a man; these regular and successive stages of existence being the ordinances of God, subject alone to his divine will, and appointed by sovereign wisdom and goodness, as the exclusive means of preserving the race, and multiplying the enjoyments of mankind."

Having thus endeavored to show that there is no period of gestation at which the foetus is not to be considered alive, I come now to take up the consideration of the questions originally proposed.*

Quest. 1. *Has the foetus in utero been actually destroyed?*

The proofs to establish this are to be drawn from two sources, viz., from an examination of the reputed mother, and an examination of the foetus.

Of the signs of abortion to be deduced from an examination of the female.

In the early months of pregnancy, it is extremely difficult to ascertain whether an abortion has taken place or not. The

* Jorg, of Vienna, attempted in 1837 to revive the miserable doctrine of the Stoics, asserting that the human foetus was only a higher species of worm. His views were universally and justly condemned. (Brit. and For. Med. Rev., vol. vii. p. 133.)

foetus has scarcely had time to make those firm attachments which afterwards unite it to the womb; nor has it attained to a size sufficient to produce those general changes in the constitution of the mother, nor those local alterations from the distention of the uterus and abdomen, which are afterwards occasioned. Its separation, therefore, if unattended by violence, may leave but faint, if any traces of its previous existence. The hemorrhage attending it is also of small consequence, inasmuch as the uterine vessels have not yet attained any great size, and therefore very speedily contract. The period to which these remarks more particularly apply is the first two months of pregnancy, during which it is conceded that a satisfactory opinion cannot always be formed from an examination of the female. After this period, and just in proportion to the approach to the full term, will the signs be more decisive and satisfactory. These signs have been detailed in the previous pages, under the heads of Pregnancy and Delivery. It may be proper, however, here to repeat that all of them have been objected to as uncertain, inasmuch as almost every one of them may be produced by other causes than delivery. Thus, for example, the enlargement and relaxation of the external parts may arise from simple menstruation; the dilatation of the vagina and os uteri, and the enlargement of the uterus, may arise from disease; the relaxation and marked state of the abdomen, from dropsy; even the areolæ around the nipples, and the secretion of milk, may depend on other causes than pregnancy and delivery.

Now it must be admitted that all these objections are, to a certain extent, well founded, and they go to show that no one sign, taken by itself, ought to be considered sufficient to establish the fact. In all cases, a *number of the signs* should concur before any satisfactory conclusion can be formed. If this general caution be observed, the force of all the preceding objections will be materially weakened. Thus, for instance, *menstruation* may relax the vagina and external parts at the same time that it causes a discharge from these organs. In this case, however, all the other signs will be absent. The peculiar odor of the lochia will be wanting; there will be no

dilatation of the os uteri, no enlargement of the uterus, no wrinkling of the abdominal parietes, no secretion of milk, and no areola around the nipples. Again, *dropsy* may cause a great relaxation and wrinkling of the abdomen. I say *may*, because, generally speaking, unless the dropsical fluid be suddenly removed by tapping, this will not happen, as in ordinary cases the fluid is removed so gradually that the abdomen has time to contract, and accommodate itself to the change. Admitting, however, that these signs of pregnancy may be counterfeited by dropsy, so many others will be absent as to leave no doubt in the case. The vagina and external parts will not be affected, the os uteri will not be dilated, the uterus will not be enlarged, the breasts will have undergone no change, and there will be no lochial discharge.

With regard to the *secretion of milk* from other causes than pregnancy, this is a fact which cannot be denied. But in cases of this sort, so many of the other signs of delivery will be absent as to obviate any difficulty that may arise.

As to the objections founded on the existence of hydatids, it must be confessed that much more difficulty attends a correct decision. These, however, I shall consider fully under the next head.

Of the signs of abortion in cases in which the delivery is followed by the death of the female.

Cases of this kind sometimes occur, and it then becomes the duty of the professional man to prosecute his researches still further, by an anatomical inspection of the uterus and its appendages.

1. *The uterus.* In this organ various appearances will be detected, indicating the fact of its having contained a foetus.

Its *size* will be different from that of the unimpregnated uterus. In the unimpregnated state, the dimensions of the uterus may be put in round numbers at three inches for its length, two for its breadth at the fundus, one inch at the cervix, and one inch for its thickness. In the gravid state, its size must of course vary according to the size of the foetus

and the quantity of liquor amnii.* A general average, however, of its gradual changes in this respect may be put as follows: During the first month the uterus undergoes little or no change in its size.† During the second month it becomes considerably enlarged. About the end of the third month it will measure about five inches in length, the cervix one inch. In the fourth month it will measure five inches from the fundus to the beginning of the neck, in the fifth month six inches from the fundus to the cervix, in the sixth and seventh months about eight inches, and in the ninth it will be from ten to twelve inches from the top to the bottom.‡

Now in case where a woman dies from hemorrhage, at the full time, either during labor or immediately after, the uterus will be found like a large flattened pouch measuring from ten to twelve inches. In this case, little or no contraction having taken place, the dimensions of the uterus are little changed from what they were anterior to labor. If, however, uterine contractions should have taken place, the dimensions would be considerably less. If some days had elapsed, the size would of course be still more diminished. If the examination be made about two days after delivery, the uterus will be about seven inches long. At the end of a week it will be about five or six inches,§ and at the end of a fortnight, about five inches long.

Its *shape* will be different from what it is in the unimpregnated state. In the unimpregnated state, the uterus is flat, pyriform, or somewhat triangular in its shape. On the occurrence of pregnancy, the body of it becomes globular, without any material change having taken place in the neck, until about the fifth month. After this the neck grows shorter and broader, until in the two last months it is almost entirely obliterated, and forms a part of the general cavity of the

* An Anatomical Description of the Human Gravid Uterus and its Contents, by the late William Hunter, M.D., p. 2.

† Maygrier's Midwifery, p. 81.

‡ Burns' Midwifery, pp. 185, 563.

§ According to Burns, "a week after delivery, the womb is as large as two fists." (Midwifery, p. 564.)

uterus. The shape of the uterus is now completely ovoid. Now if death takes place during, or immediately after labor, the shape of the uterus will be ovoid, or if contractions have taken place, it will be globular. If, on the other hand, several days have elapsed, it will have regained somewhat of its pyriform shape.

Thickness of the uterus. On this point contradictory accounts are given. At the full time, however, when the uterus is still distended with its contents, its thickness varies very little from that before impregnation; in some cases even it appears to be thinner;* according to Hunter, its more common thickness is from one to two-thirds of an inch.† Generally speaking, too, the uterus is thickest where the placenta has been attached. When, however, the examination is not made until some hours or days after delivery, and the uterus has had time to contract, it will be found thicker than natural. In that state it will often be found two inches thick.‡ It is well enough to recollect that gravid uteri, when injected, are much thicker than in their natural state.§

Uterine blood-vessels. There is nothing in connection with the pregnant uterus more striking than the great enlargement which the blood-vessels have undergone. Both the arteries and veins, but more especially the latter, are enormously enlarged. This is most strikingly observed in that portion of the uterus to which the placenta is attached.|| The arteries will be found from the size of a crow-quill, downward,¶ and the veins much larger. In some cases, the orifices of the veins opening into the uterus from the surface where the placenta has been attached, are large enough to admit the extremity of the little finger.**

* Monro, in the *Edinburgh Essays and Observations*, Physical and Literary, vol. i. p. 418; see also Hunter on the Gravid Uterus, p. 15.

† An Anatomical Description of the Human Gravid Uterus and its Contents, by William Hunter, M.D., p. 15.

‡ Hunter on the Gravid Uterus, p. 15.

§ *Edinburgh Essays and Observations*, vol. i. p. 418.

|| Hunter on the Gravid Uterus, p. 17.

¶ *Edinburgh Essays and Observations*, vol. i. pp. 427, 435.

** *Ibid.*, vol. i. p. 412.

Inner surface of the uterus, and the placental mark. If the examination be made shortly after delivery, the cavity of the uterus will be found to contain coagula of blood, or a bloody fluid. The part of the uterus to which the placenta has been attached will be very visible, and corresponding in size to the placenta. This part will be of a dark color, and have a gangrenous appearance; the vessels leading to it will also be much more enlarged than those of any other portion of the uterus.

Ligaments of the uterus. These undergo great changes. The *broad ligaments* will be found effaced, in consequence of the fundus of the uterus enlarging and rising, so as to stretch them into a uniform covering of the uterus. This, of course, is only at the full term of pregnancy; at earlier periods, the condition of these ligaments will vary according to the enlargement which the uterus may have undergone. The *round ligaments* will be found much elongated, and thicker than in the ordinary state. In this state they are about the thickness of the little finger, though normally not thicker than a crow-quill. They are also exceedingly vascular, so much so, that when injected, "they seem to be little more than a bundle of arteries and veins."

Fallopian tubes. These will be found less convoluted, larger, and much more vascular than in the unimpregnated state. So great is this vascularity as frequently to give them a purplish appearance, looking very much as if they were in a state of inflammation. Generally, the tube leading to the ovary from whence the ovum has escaped will be found the most enlarged. Mr. Burns says: "The Fallopian tube preserves its greater vascularity for a very considerable time, I cannot say how long, after delivery."

Ovaria. One of these will be found but little different from the state anterior to impregnation; but not so the one from which the ovum has escaped, and which contains the *corpus luteum*. This ovary can easily be identified by a peculiar fullness or prominence in one part of it, sensible both to the sight and touch, in the middle of which there is a small indentation like a cicatrix. On laying open the ovarium at

this part, there will be found a body of a very distinct nature from the rest of the ovarium; this is the *corpus luteum*. The nature and appearance of this peculiar substance, and the value which should be attached to its presence as a sign of impregnation, have been fully treated of under the head of Delivery, page 361, *et seq.*

Relative value of the preceding signs, drawn from an examination after death. Striking as the foregoing signs unquestionably are, objections of a very serious character may be made against them. As these objections have actually been brought forward in criminal trials, a notice of them is unavoidable. Of these the only ones which require consideration are, that all the appearances just described as found on dissection after delivery, may have been occasioned by the delivery of *hydatids* or *moles*; and that the corpora lutea may exist independent of pregnancy and delivery. Each of these objections I shall briefly notice.

1. *Hydatids.* Although not of very frequent occurrence, they are sometimes found existing in the uterus. They are small vesicles, hung together in clusters, and filled with a watery fluid. [Their nature, though long the subject of controversy, is now well understood. They are the result of changes in the ovum and probably in the chorion only. They sometimes exist in large masses; enough to fill a basin or pail has been discharged at one time. They are incontrovertible evidence of impregnation. Such being the fact, the medico-legal interest of the question, whether an ovum in its normal condition or in a state of degeneration (*hydatids*) has been discharged, loses most if not all of its interest.—C. R. G.]

Besides all this, in cases where the signs of delivery are alleged to be owing to *hydatids*, it is but reasonable to expect that these should be adduced in evidence, and in that case, of course, all difficulty will at once be obviated.

2. *Moles.* These are peculiar substances contained within the cavity of the womb. They consist of a membrane inclosing generally a quantity of coagulated blood; frequently, however, they appear of a fleshy structure, without any blood. In their size, consistence, and structure, they differ very much

in individual cases. [Though the contrary opinion was long and strenuously maintained, it is now very generally conceded that moles, like hydatids, are always the product of conception, that they are indeed degenerate ova. As to their relations to medical jurisprudence, the same remarks apply as to hydatids.—C. R. G.]

Of the signs of abortion, deduced from an examination of what may have been expelled from the uterus.

Here there are three objects to be had in view, viz.: To ascertain whether it be really a foetus that has been expelled from the uterus; and if it be a foetus, to ascertain its age; and lastly, to ascertain the cause of its expulsion.

1. *To ascertain whether it be really a foetus which has been expelled.* From the difference in structure of the foetus from hydatids and moles, it is scarcely possible that any mistake can be made in distinguishing them from one another, except in the very early months of pregnancy, say in the first two months; and at this early period, probably no medico-legal investigation could ever be instituted with any satisfactory result.*

2. *To ascertain the age of the foetus.* This is important, inasmuch as it enables us to compare it with the appearances found on an examination of the female, to see how they correspond, and in this way to assist in detecting any imposition which may be attempted. In a preceding chapter the progressive developments of the foetus have been so fully detailed as to render here unnecessary anything more than a simple reference to it.†

3. *To ascertain, if possible, what has been the cause of the miscarriage.* If the abortion has been occasioned by the use of drugs, etc. taken by the mother, nothing can be learned as

* [A microscopic examination of any, the smallest, portion of the chorion to which flocculi were attached, would enable any one who was familiar with their appearance under the microscope, to speak confidently as to their nature and the existence of pregnancy.—C. R. G.]

† See chap. vii. part ii.

to the cause of it, whether it be voluntary or involuntary, from any examination of the fœtus. In all cases its appearance will be very much the same, whatever may have occasioned its expulsion from the womb. As, however, it may have been produced by mechanical violence done to the fœtus itself, by the introduction of instruments, etc., it becomes necessary to examine it very carefully, and more especially its head, to discover the nature and extent of the wounds (if any) which may have been inflicted.

Quest. II. *Of the means by which the death of the fœtus may have been produced.*

Having, in the foregoing section, examined the first question to be solved, viz., whether a fœtus in the utero has actually been destroyed, the second question relates to the causes by which such destruction may have been produced.

The practice of causing abortion is resorted to by unmarried females, who have become pregnant, to avoid the disgrace which would attach to them from having a living child; and sometimes it is even employed by married women, to obviate a repetition of peculiarly severe labor-pains which they may have previously suffered. But abortion is not always associated with crime and disgrace; it may arise from causes perfectly natural, and altogether beyond the control of the female. The physician should therefore be extremely cautious in his proceedings, even in cases of illegitimate pregnancy, and where the voice of popular prejudice seems to call upon the medical witness merely to confirm its previous and often false decisions. The destruction of the fœtus may then result from two sets of causes. 1. The use and application of various criminal agents. 2. The ordinary and accidental causes which are known to produce it, without any criminal interference. Each of these require examination, as in every trial of this kind they may be made the subject of special inquiry by the court and jury.

1. *Of the criminal means resorted to for the purpose of destroying the fœtus.*

These may be divided into general and local. To the first belong venesection, emetics, cathartics, diuretics, emmenagogues, etc. etc. The second embraces all kinds of violence directly applied.

Venesection. From the earliest periods it has been supposed that bleeding, during pregnancy, exercised some deleterious influence upon the fœtus, and that the repetition of it would infallibly destroy it. Hippocrates entertained this belief,* and it has accordingly long been resorted to as one of the popular modes of producing abortion. Bleeding from the foot has been supposed to be particularly effective in this way. All this is probably founded on the supposition that when blood is taken from the mother, the fœtus loses a proportional quantity, and that by a frequent repetition, the latter may eventually be bled to death. Experience, however, the most ample and satisfactory, has proved conclusively, that except in particular states of the constitution, venesection, however repeated and copious, can have no direct effect upon the fœtus; and further, that in many cases it is the most effectual agent in averting abortion. Mauriceau relates the history of two pregnant women, who were delivered at the full period, of living children, although one of them had been bled forty-eight times, and the other ninety times, for an inflammation of the chest.† By the same author a case is recorded in which a person was bled ten times from the foot during pregnancy, without any bad effect on the fœtus.‡ Dr. Rush, in speaking of the effects of bleeding in the yellow fever of 1793, asserts that not one pregnant woman to whom he prescribed it died or suffered abortion.§ In his defence

* Mulier uterum ferens abortit secta vena, eoque magis, si sit fœtus grandior. (Hippocrates, sec. 5, aphor. 31.)

† Capuron, p. 307.

‡ An Elementary Treatise on Midwifery, by A. L. M. Velpeau, M.D. Translated by C. D. Meigs, M.D., p. 236.

§ Medical Observations and Inquiries, vol. iii. p. 309.

of blood-letting, the same writer gives us the account of one woman whom he bled eleven times in seven days, during her pregnancy; of another, who was bled thirteen times, and of a third who was bled sixteen times, while in the same condition. All these women, he adds, recovered, and the children carried during their illness were born alive and in good health.* The foregoing facts, selected from a multitude of a similar character, are abundantly sufficient to show the extent to which venesection may be carried during pregnancy, without being attended with any injurious consequences to the foetus; and the effect is the same, from whatever part of the body the blood is drawn, whether from the arm or from the foot.

In the cases just alluded to, it is true, blood was drawn during the state of disease, when the loss of a much larger quantity can be borne than in ordinary health. Nevertheless, even in a state of health, the loss of a very large quantity of blood is not necessarily attended by any injurious consequences to the foetus. On the other hand, it should be recollected, that when the constitution of the mother is naturally feeble and irritable, or has become much debilitated by disease, the injudicious loss of blood during pregnancy may prove fatal to the foetus. In all cases, therefore, the question whether the bleeding has had any agency in producing the destruction of the foetus, must be determined by the particular circumstances of the individual case. At the same time, the mere fact of repeated bleedings having been resorted to without any obvious necessity for it, must be held as some evidence of the intention of the person.

Leeches. By some it is supposed that the application of *leeches* to the anus, insides of the thighs, or the vulva, has the effect of producing abortion. In this country, this practice is so uncommon that we are hardly able to form any very correct opinion on the subject. A recent French writer, however, states that he has frequently applied leeches to these parts during pregnancy, in cases of intestinal affections, and in no instance did he find any bad consequences happen. At the

* Medical Observations and Inquiries, vol. iv. p. 302.

same time he recommends great caution in the use of this remedy, especially in females who are liable to abort.*

Emetics. From the well-known fact, that many women are troubled with distressing nausea and vomiting during the whole of their pregnancy, and yet are safely delivered of living children at the regular period, it has been supposed that the foetus could not be much injured by the use of emetics. The fact, however, seems to be, that although the vomiting attendant upon pregnancy very seldom produces abortion, yet that which is produced by emetics is not unfrequently followed by consequences the most serious both to mother and foetus. In this opinion I am supported by the authority of Mr. Burns, who says that "it is worthy of remark, that abortion is very seldom occasioned by this cause, (the vomiting of pregnancy,) though emetics are apt to produce it."† The reasons of the difference in the two cases may be the following: First, the vomiting of pregnancy is less violent than that which is excited by artificial means; and secondly, it occurs, as a general rule, only in the early months of pregnancy, when, of course, less danger attends the operation. Just in proportion to the size and development of the uterus is the danger to be apprehended from the spasmodic contraction of the diaphragm and abdominal muscles during vomiting. In the latter months of pregnancy, therefore, emetics prove much more dangerous than at an earlier period. But emetics do not always succeed. Velpeau relates a case falling under his own observation, in which fifteen grains of *tartar emetic* were taken to produce abortion. Although violent efforts at vomiting were occasioned, yet the progress of the pregnancy was not interrupted.‡

Cathartics. As a general rule, pregnant women are not apt to be injured by moderate purging. When attacked with disease, they may be purged very freely without any risk. During the yellow fever of 1793, Dr. Rush informs us that he

* *Etudes Cliniques sur les Emissions Sanguines Artificielles*, par A. P. Isidore Polinière, tome i. p. 34.

† *The Principles of Midwifery*, p. 230; 7th American edition.

‡ Meigs' Velpeau, p. 236.

gave large and repeated purges of calomel and jalap to many women in every stage of pregnancy, and in no case did any injury ensue to the child. Nay, he adds, that out of a great number of pregnant women whom he attended in this fever, he "did not lose one to whom he gave this medicine, nor did any of them suffer an abortion. One of them had twice miscarried in the course of the two or three last years of her life. She bore a healthy child three months after her recovery from the yellow fever."* If, however, the purging should happen to be carried too far, or continued too long;† if the article used be very drastic in its nature; if it act particularly on the rectum,‡ (between which and the mouth of the uterus there appears to be a peculiar sympathy;) or if the female be of a nervous, irritable habit, then purging may be, and frequently is, followed by the death and expulsion of the fœtus. Purgatives, therefore, may or may not produce abortion, according to circumstances.§

Diuretics. This class of agents has long been supposed capable of producing abortion, and has accordingly been frequently used for this purpose. That they are occasionally attended with success is true; but I have no doubt that, generally speaking, they have failed. They certainly are destitute of any specific power of exciting uterine action. Mr. Burns seems to think that they are capable of bringing on abortion, and accordingly advises that they should be avoided during pregnancy.|| Still, from his own language, I should not infer that he had ever witnessed this effect, although he says that he has seen diuretics given very freely

* Medical Observations and Inquiries, vol. iii. p. 249.

† Several cases of abortion have been known to occur in this city, in females who were in the constant habit of taking Brandreth's pills, a purgative nostrum at present very popular in this country. See an essay on the influence of trades, etc., by B. W. McCready, M.D., Trans. of the Med. Society of the State of New York, vol. iii. p. 149.

‡ Those purgatives which produce tenesmus are most apt to cause abortion. Hence it is, too, that dysentery produces this effect.

§ Dr. James Johnson states that he has known a very moderate dose of calomel and rhubarb to cause a premature delivery. (Medico-Chirurgical Review, vol. xvii. p. 98.)

|| Principles of Midwifery, p. 283.

to pregnant women laboring under ascites.* On the other hand, there are many positive facts on record to prove that diuretics may be taken with impunity by pregnant women. Zacchias relates the case of a female who, after an interval of five years, considered herself pregnant, and shortly afterwards was attacked with sciatica. Several physicians and midwives were called to examine her, and decided unanimously that she was not pregnant, particularly as she lost a little blood every month, though not so much as in menstruation. They therefore prescribed for the disease which afflicted her, bled her repeatedly in the foot, administered purgatives frequently, together with diuretics and sudorifics. All this did not prevent her from bringing forth a healthy child at the expected time.†

In the Edinburgh Medical Essays and Observations is recorded a case of a female who had ascites during pregnancy. Three months after conception she was tapped, and eight pints of water drawn off. After this she was tapped twice again, and at each time four pints were drawn off. During this time, too, she took freely of active diuretics and cathartics, among which were calomel and various hydragogue articles. Notwithstanding all this, she brought forth a living healthy child at the full time.‡

Concerning the *oil of juniper*, Foderé relates the following fact, which shows that this powerful article has failed in effecting an abortion: A pregnant female took every morning, for twenty days, one hundred drops of the distilled oil of juniper without injury, and was delivered of a living child at the expiration of the ordinary term.§

Even *cantharides* has been taken in very large doses, with a view of procuring an abortion, without accomplishing the desired effect. "Some years ago," says Mr. James Lucas, one of the Surgeons of the General Infirmary at Leeds, "I was called to a patient who had taken about a drachm of powdered cantharides in order to induce abortion, and which

* Principles of Midwifery, p. 288.

† Vol. vi. p. 138.

‡ Foderé, vol. iv. p. 430.

§ Foderé, vol. iv. p. 430.

brought on frequent vomiting, violent spurious pains, a tenesmus, and immoderate diuresis, succeeded by an acute fever, which reduced her to extreme weakness, yet no sign of miscarriage appeared, and about five months afterwards she was delivered of a healthy child."* Cases, however, have occurred in which cantharides have caused abortion. Dr. James Johnson mentions one as occurring within his own knowledge.†

Nitre. Dr. Paris relates the case of a woman in Edinburgh who, having swallowed by mistake a handful of this salt, suffered abortion in less than half an hour.‡

Emmenagogues. Under this general head there are several articles which require notice. Among the more important are savine, mercury, polygala senega, and pennyroyal.

Juniperis sabina, (savine.) This is a powerfully stimulating article, and, as an emmenagogue, has been used with considerable effect. It has also long been used for the purpose of procuring abortion, and no doubt possesses considerable power in this way. Galen asserts that it acts with sufficient energy on the uterus to destroy the foetus;§ and in the present day it is said to be constantly used by negresses in the Isle of France with this intention.||

In the case of Miss Burns, for whose murder Mr. Angus was tried at Lancaster, in 1808, there is reason to believe, from the testimony offered, that savine oil had been administered to effect an abortion. In 1853, Wm. H. Pascoe, a licentiate of the London College of Apothecaries, was indicted for administering one drachm of savine to Catherine N., with intent to procure an abortion. He was found guilty, and sentenced to be transported for ten years. (Lancet, April 3, 1852.) That it does not always succeed, is evident from a case related by Foderé. In 1790, a poor, imbecile, and cachectic girl, in the duchy of Aoust, in the seventh month of her pregnancy, took from the hands of her seducer a glass of wine, in which there was mixed a large dose of powdered savine. She be-

* Memoirs of the Medical Society of London, vol. ii. p. 208.

† Medico-Chirurgical Review, vol. xvii. p. 98.

‡ Medical Jurisprudence, by Paris and Fonblanque, vol. iii. p. 94.

§ Dictionnaire Matière Medicale, vol. iii. p. 696.

|| Ibid.

came so ill, that report of it was made to the magistrate, who ordered Foderé to visit her. The patient stated to him, that on taking the drug she had felt a burning heat, accompanied with hiccough and vomiting. This was followed by a violent fever, which continued for fifteen days. By the proper use of refrigerants, however, she recovered, and at the end of two months was safely delivered of a healthy child.*

In another case, recorded by Murray, while it was successful in producing an abortion, it destroyed the life of the mother.† Professor Christison relates, on authority of Mr. Cockson, the case of a girl who, to produce abortion, took a strong infusion of savine leaves. Violent pain in the abdomen and distressing strangury ensued. In two days after taking it, she miscarried; and in four after that she died. On dissection, Mr. Cockson found extensive peritoneal inflammation—the inside of the stomach of a red tint, chequered with patches of florid extravasation. The uterus presented all the signs of recent delivery.‡ A case very similar to this occurred in Albany, 1850. Abortion was followed by death. Post-mortem examination showed intense gastritis with perforation.

Mercury. This has long been considered as an article capable of occasioning abortion. Crude quicksilver was at one time supposed to possess this property. It was accordingly used, not merely for this purpose, but also in all cases of difficult labor. It was not long, however, before it was ascertained that large quantities of it might be taken by pregnant women with perfect impunity. Matthiolus relates of several pregnant women, each of whom drank a pound of quicksilver to cause abortion, without any bad effect.§ The same fact is confirmed

* Foderé, vol. iv. p. 431.

† “Femina triginta annorum, abortum meditans, infusum sabinæ ingessit; unde insignis vomitus continuus. Aliquot dies post sensit diros dolores; tandem abortus successit, cum insigni hæmorrhagia uteri, dein mors. In cadavere vesicula follea rupta apparuit, cum effusione bilis in abdomen, et inflammatione intestinorum.” (B. I. And. Murray, apparatus medicaminum, etc., vol. i. p. 59.)

‡ Treatise on Poisons, pp. 531, 532, 2d edition.

§ James' Dispensatory.

by Fernelius.* *Calomel*, however, is the preparation of mercury most generally supposed to exert a specific influence upon the uterine organs. That it possesses the power of producing miscarriage, is countenanced by the authority of Mr. Burns, who directs that a full course of mercury should be avoided during pregnancy.† Facts, however, both numerous and conclusive, are on record to prove that a pregnant woman may go through a long course of mercury, without the least injury either to herself or to the child. Bartholin and Mauriceau relate several cases, in which mercury was given to salivation, to pregnant women affected with syphilis, and who all, at their full time, were safely delivered of healthy children.‡ Mr. Benjamin Bell, than whom I could not quote higher authority, says: "It is a prevailing opinion that mercury is apt to occasion abortion, and it is therefore seldom given during pregnancy. Much experience, however," he adds, "has convinced me that this opinion is *not* well founded, and when managed with caution, that it may be given in sufficient quantities at every period of pregnancy, for curing every symptom of syphilis, and *without doing the least injury either to the mother or child.*"§ To the same effect is the testimony of Dr. Rush concerning the use of calomel in the yellow fever of 1793. In not a single instance did it prove injurious to pregnant women.|| The following case, which fell under my own care, confirmed me in the opinion already advanced. A female, eight months gone with child, was attacked with a violent inflammation of the lungs. After the use of the ordinary depleting remedies, I found it advisable to have recourse to mercury. She was accordingly put upon the use of small doses of calomel and James' powder. In a few days salivation came on; after which all the symptoms of her pulmonary complaint speedily vanished, and the patient was restored to her usual health. She was afterwards delivered of a living child at the full period.

* Vidi mulieres qui libras ejus biberunt ut abortum facerent, et sine noxa. (Fernelius.)

† Midwifery, pp. 231, 233.

‡ Foderé, vol. iv. p. 429.

§ Bell on the Venereal, vol. ii. p. 265; American edition.

|| Medical Observations and Inquiries, vol. iii. pp. 249, 309.

Dr. Campbell states that he was once asked to visit a young girl, whom he found so violently salivated, with a view to excite abortion, that her tongue could be compared to nothing else than a honey-comb. But, notwithstanding her extreme suffering, she went to the full time.* At the same time there can be no question that the preparations of mercury, if given to patients *predisposed to abortion*, and especially if carried so far as to produce salivation, may be followed by that result. [I think this should be stated more strongly, though I can scarcely go as far as Dr. D. Davis, who says the abortive power of mercurialization is second only to the use of steel instruments. Abortion will very often follow salivation.—C. R. G.]

Polygala seneka. This article has now been known and used in this country for a number of years, for the purpose of acting on the uterine organs, with the view of restoring menstrual secretion. The first notice which I have met with, of its properties in this respect, is in an inaugural dissertation by Dr. Thomas Massie, of Virginia, published in 1803. By him the action of it on the uterus is especially noticed; and the authority of Dr. Archer, of Maryland, is given of its being used by the common people in that State for the purpose of procuring abortion.† That it may possess some power as an abortive, may be inferred from its acknowledged power as an emmenagogue.‡

Pennyroyal. This article is reputed by some to be a powerful abortive. Dr. Watkins relates a case, in which the mere odor of it produced abortion in a delicate woman in the fourth month.§ At the Chelmsford assizes, August, 1820, Robin Collins was indicted for administering steel-filings and pennyroyal water to a woman with the intent to procure abortion. He was convicted, and sentenced to transportation for fourteen years.||

* Introduction to the Study and Practice of Midwifery, by Wm. Campbell. M.D., p. 142.

† Medical Theses, by Charles Caldwell, M.D., vol. ii. p. 203.

‡ See paper of Dr. Hartshorne, in Eclectic Repertory, vol. ii. p. 201.

§ Coxe's Medical Museum, vol. ii. p. 431.

|| Paris and Fonblanque, vol. iii. p. 88.

Besides the foregoing articles, belonging to the class of emmenagogues, there are others which are entitled to a place under the class of abortive agents.

Secale cornutum—*spurred rye*—*ergot*. This article, at present so fashionable in obstetric practice, was first announced to the profession in this country in the year 1807, by Dr. John Stearns, of New York, as a substance capable of accelerating, in an extraordinary manner, the process of parturition. As might naturally be expected from the announcement of a remedy so novel and unique, it excited much interest, and as soon as subsequent experience had confirmed its virtues, rose at once into the most unlimited popularity. In the year 1812, it was suggested by the editors of the New England Journal of Medicine and Surgery, that while fully convinced of the parturient powers of the ergot, they were apprehensive that an evil of great magnitude not unfrequently resulted from its use; and that was, the death of the child. They stated that they had been led to this apprehension from “observing that in a large proportion of cases where the ergot was employed, the children did not respire for an unusual length of time after the birth, and in several cases the children were irrecoverably dead.”* The observations of numbers of highly respectable physicians, since that period, have tended but too strikingly to confirm this melancholy fact. At present, it will scarcely be denied by any one acquainted with the operation of ergot, that if given in very large doses, or at improper periods, it will but too certainly prove detrimental to the life of the child.† It is to be feared, that for this purpose it has been but too frequently used in this coun-

* Vol. i. p. 70.

† For testimony on this point, I refer to the following authorities: New York Medical Repository, vol. xii. p. 344; vol. xx. p. 11; vol. xxi. pp. 23, 139. New England Journal of Medicine and Surgery, vol. i. p. 70; vol. ii. p. 353; vol. v. p. 161; vol. vii. p. 216; vol. viii. p. 121. New York Medical and Physical Journal, vol. i. pp. 205, 278; vol. ii. p. 30; and more particularly a paper by Mr. Chavasse, of Birmingham, published originally in fourth volume of the Trans. of the Provincial Med. and Surg. Association, and reprinted in the Transactions of the Med. Society of the State of New York, vol. iii. p. 348. This paper contains a number of facts worthy of the most attentive consideration.

try. It cannot, therefore, be too strongly insisted upon, that the life of the mother is equally jeopardized with that of the child, by its improper use. By some it has been doubted whether the ergot is capable of producing an abortion, or whether its action is limited to the full period of utero-gestation, and when the uterus is beginning to act itself for the purpose of unloading its contents. That it does possess the power of causing abortion at any period, would seem to be proved by experiments made upon animals;* and Dr. Chatard records a case of abortion induced in the human female subject at the fourth month of pregnancy, by twelve grains of ergot.† Notwithstanding all this, it is a fact that ergot is no more infallible as an abortive than any of the agents already noticed. Dr. Condie states that several instances have come to his knowledge, in which the ergot was employed to the extent of several drachms a day, for the express purpose of inducing abortion, but without exerting the least effect upon the uterus. In all these cases gestation continued for the full period, and the females were delivered of living children. He also states that he has known the ergot to be given in large and repeated doses by ignorant midwives, where pains simulating those of parturition have occurred toward the termination of utero-gestation, in order to quicken the labor; but so far from doing this, the pains have actually ceased under its use, and labor has not occurred for several weeks subsequently.‡ I have myself met with one case in which a female, who had had several children, took of her own accord three drachms of ergot to produce an abortion, without any effect.

Actæa racemosa—the *black cohosh*, or *squaw root*. This is a common plant, found in every part of the United States, and the root of it is a good deal used by some of our American practitioners. Recently, it has been brought into notice as an article possessing powers analogous to those of the

* Philadelphia Journal of Medical and Physical Sciences, vol. xi. pp. 112, 113.

† New York Medical Repository, vol. xxi. p. 16.

‡ American Journal of Medical Sciences, vol. x. p. 227.

ergot. By our native Indians, it appears to have been long supposed to possess properties of this sort, and Mr. Rafinesque states that it is "much used by them in facilitating parturitions, whence its name—squaw root." Dr. Tully, in a paper on this subject, has recorded the testimony of a number of respectable physicians, who have used this article for this purpose, and, as they state, with decided success, acting very much in the same way as the ergot. A fluid drachm of the saturated alcoholic tincture acted as a sufficient dose without being repeated.* According to Dr. Tully, the actæa does not appear to exert the same stupefying and deleterious influence on the foetus that he supposes is produced by the ergot.

Among the *local means* used for procuring abortion, there are only two which require to be noticed.

Blows and other injuries on the loins and abdomen. In cases where severe blows have been received on the back, the danger of abortion is always imminent. It is, indeed, rare that a female goes to her full time when she has received such an injury. Blows on the abdomen are equally dangerous; and in most cases of this kind a considerable hemorrhage precedes the death of the foetus. In disputed cases, where it is denied that the injury inflicted has caused the abortion, we should attend to the two following circumstances: First. Whether the violence offered was sufficiently great to be considered as the sole cause. Second. Whether the female was not disposed to abortion, and had failed in some precautions, or committed some imprudence, which might have induced it. After investigating these facts, we ought to inquire whether the accused knew of the pregnancy of the female, or whether she had not provoked the blows which she received. Two cases from Belloc may serve to illustrate these distinctions. A young woman, between the third and fourth months of her pregnancy, had received from a robust man several kicks, and blows with the fist, the marks of which were very evident. Immediately after the accident, she was put to bed, bled, and various remedies given by a surgeon. The hemorrhage, how-

* Actæa Racemosa, by William Tully, M.D., Professor of Materia Medica in Yale College, in the Boston Med. and Surgical Journal for April 10, 1833.

ever, continued, with pains in the loins and abdomen, and the next day she had an abortion. Belloc, on being examined, declared that the abortion was owing to the violence which had been inflicted.* In another case, a female brought forth a dead foetus, four months advanced, two days after a quarrel with her husband, in which she said he had struck her. Instead, however, of lying down, or at least keeping quiet, she walked a league that day, and on the next a quarter of a league, to a place where she was to aid in bringing in the harvest; nor was it until her arrival there, that she was forced to go to bed. In this case Belloc decides that it is very possible, had she remained quiet and called for proper aid, the abortion would not have taken place, particularly as the violence used was only that of throwing her down in the street.†

With regard to this cause of abortion, as well as the others that have been mentioned, it is to be understood that the life of the *mother* is equally exposed with that of the child. The following case, related by Dr. Smith, illustrates this fact in a striking manner, and is only one of a number which might be adduced. In 1811, a man was executed at Stafford for the murder of his wife. She was in the pregnant state, and he had attempted to induce abortion in the most violent manner, as by elbowing her in bed, rolling over her, etc., in which he succeeded—not only procuring abortion, but along with it, the death of the unfortunate woman.‡

By Dr. Campbell a case is recorded of a female who, in the last month of pregnancy, was struck on the abdomen by her husband. An extensive detachment of the placenta caused the immediate death of the foetus, and that of the mother in fifty-one hours afterwards.§

[It cannot be too often repeated that in reference to the production of abortion, whether by the administration of drugs or by external violence, everything depends on the existence of a predisposition. If such predisposition exist,

* Belloc, p. 81. † Cours de Médecine Légale, par J. J. Belloc, p. 82.

‡ Smith's Forensic Medicine, p. 305.

§ Introduction to the Study and Practice of Midwifery, etc., p. 137.

savine, mercury, an emetic, or a drastic purge, or a slight shock or fall, will be pretty certainly followed by abortion, while if no such predisposition be present, the most powerful irritants or the greatest amount of personal violence, even though sufficient to destroy life, will not produce the slightest abortive effort.—C. R. G.]

The introduction of instruments into the uterus for the purpose of rupturing the membranes, and thus bringing on premature action of the womb. Of this villanous practice, which has long been known and resorted to for the nefarious purpose of producing abortion, I shall say nothing more than to give the history of a few cases in which it was used, and which will show the effects with which it is attended. "At Durham assizes, in 1781, Margaret Tinkler was indicted for the murder of Janet Parkinson, by inserting pieces of wood into her womb. The deceased took her bed on the second of July, and from that period thought she must die, making use of various expressions to that effect. She died on the twenty-third. During her illness, she declared that she was with child by a married man; and he being fearful, should she be brought to bed, that the knowledge of the circumstance would reach his wife, advised her to go to the prisoner, who was a midwife, to take her advice how to get rid of the child—being at the time five or six months gone. The delivery took place on the tenth of July, three days previous to which a person saw the deceased in the prisoner's bed-chamber, when the prisoner took her round the waist and shook her in a violent manner, five or six different times, and tossed her up and down. She was afterwards delivered at the prisoner's house. The child was born alive, but died instantly, and it was proved by surgeons to be perfect. There was no doubt but that the deceased had died by the acceleration of the birth of the child; and upon opening the womb of the mother, it appeared that there were two holes caused by wooden skewers, one of which was mortified and the other inflamed. Additional symptoms of injury were also discovered."*

In England, a very curious trial took place in 1808, of two

* East's Crown Law, vol. i. p. 354; Smith, p. 306.

persons, William Pizzy and Mary Codd, "for feloniously administering a certain noxious and destructive substance to Ann Cheny, with intent to produce a miscarriage." On the trial, it appeared that they had given medicines several times to produce abortion, without any effect. In consequence of this failure, Pizzy, who was a farrier, introduced an instrument into the vagina, and in that way destroyed the child and brought on premature delivery. This took place about six or seven weeks before the full time. Although the facts appeared very clear on the trial, yet the jury brought in a verdict of acquittal.*

By Foderé and Ristelheuber a case is related, in which rupture of the uterus and death was occasioned by the introduction of a syringe, with a long ivory pipe, for the purpose of producing abortion. On dissection, a fœtus of about two months was discovered in the abdomen.†

By Dr. Baxter, of New York, another case is recorded, in which he was called to a female who had employed a person to procure an abortion by the introduction of a silver catheter. The only effect, however, was that of wounding the os tincæ and rupturing the membranes, without expelling the fœtus. Fifteen days after the perpetration of the deed, Dr. Baxter found her in terrible pains, and having bled her twice without relief, he gave her ergot to facilitate the delivery of the fœtus, which very shortly brought it away. It was perfect, and about four months old. Unfortunately, the names of the persons concerned in this infamous transaction were never divulged.‡

I will record only one case more, the particulars of which I have recently been favored with. A few years since, a trial took place in the State of Vermont, in the case of Norman Cleaveland, who was indicted and tried for the murder of Hannah Rose. It appeared in evidence that Hannah Rose had become pregnant by the accused, and was about four months gone in her pregnancy, and that he had tried various

* Edinburgh Medical and Surgical Journal, vol. vi. p. 244.

† Medico-Chirurgical Review, vol. vi. p. 528.

‡ The Medical Recorder for 1825, vol. viii. p. 461.

means to produce an abortion, but without effect. After this, he resorted to the introduction of a sharp-pointed instrument into the vagina, and with the fatal result of immediately destroying the female herself. On a post-mortem examination, the neck of the uterus was found punctured in six places, each puncture being from half an inch to three-fourths of an inch wide. The punctures appeared to have been made by a two-edged instrument like a lancet. In addition to this, the iliac vein was wounded, and the abdomen filled with coagulated blood. The prisoner was convicted and sentenced to be hung. The punishment was afterwards, however, commuted by the legislature to five years' hard labor in the State prison.*

A most extraordinary mode of causing abortion recently occurred in France, which may, perhaps, be appropriately noticed in this place. The subject was a married woman who had four children and was pregnant of a fifth. At the commencement of her pregnancy, she was persuaded by the representations of another female to inject sulphuric acid into the vagina as an easy mode of inducing premature labor. As may readily be imagined, excessive inflammation of the parts took place, together with great general constitutional disturbance, and the final result was an almost complete obliteration of the vagina. "The medical men, on examination, found that a kind of irregular band surrounded and obstructed the vagina, beyond which, and on the brim of the pelvis, the head of the infant was distinctly felt, pressed forward by the uterine contractions. It was resolved to make an incision through the dense membrane, but when this was done, it was

* For the particulars of this case, I am indebted to Judge Hutchinson, of Woodstock, Vermont. In connection with this subject, the following instructive fact is related by Dr. Gooch: "Dr. William Hunter attempted this operation (introducing an instrument to puncture the membranes) on a young woman at about the third month of pregnancy. He found that he several times punctured the cervix uteri, and the case terminated fatally. If this happened to one of so much anatomical knowledge and skill, how much more probable must it be in the hands of those ignorant men, by whom, for the purpose alluded to, the operation is sometimes undertaken! No doubt these attempts often prove fatal, but the murdered do not tell tales." (A Practical Compendium of Midwifery, by Robert Gooch, M.D., p. 94, Amer. ed.)

found it had adhered to the bladder, which the incision completely divided. The delivery was not at all facilitated, and the attendants felt themselves compelled to perform the Cæsarean operation. The infant was extracted, dead apparently for some time, and the mother immediately expired.”*

Having thus finished the notice which I proposed to take of the methods which have been resorted to for criminally producing abortion, I must again insist upon a circumstance already adverted to, but which cannot be too often repeated; and this is, the danger which necessarily attends the life of the mother in every attempt of this sort. Even in cases where miscarriage results from involuntary causes, and where every prudential measure has been adopted for obviating its consequences, it is well known that the mother frequently falls a victim. How much more likely is this to be the result when the miscarriage is occasioned by great and unnatural violence done to the system, and that too under circumstances which generally shut out the wretched sufferer from the benefit of all medical succor! Velpeau states that he had a female under his care, who produced a violent abdominal inflammation by taking medicines to promote abortion. She died on the eighth day, without any symptoms of abortion having appeared.† There is another circumstance also of great importance, which should not be forgotten. It has happened in some instances, that while the mother has lost her life in attempting to procure a miscarriage, the child has actually been born alive and survived. A case of this kind was witnessed by Foderé in 1791. A cook, finding herself pregnant, and not being longer able to conceal it, obtained half an ounce of powdered cantharides and mixed it with an ounce of sulphate of magnesia, and took them down in order to produce abortion. Some hours after, she was seized with a violent colic, and brought forth a *living child*, in the most horrible pains. During the succeeding night she died.‡ If these facts were more generally known, I suspect the attempts at abortion would be much less frequent than they are at present. With

* Lancet, vol. viii. p. 38.

† Meigs' Velpeau, p. 236.

‡ Foderé, vol. iv. p. 436.

regard to the accessories and accomplices in this crime, it would be well for them to remember, that in every experiment of this kind which they make, they take upon themselves the awful responsibility of jeopardizing not merely a single life, but two lives.

It results, therefore, from what has been said concerning the means of producing abortion,—

1. That all of them are *uncertain* in their operation upon the foetus.

2. That they always endanger the life of the mother; and

3. That they sometimes destroy the mother without affecting the foetus.

[If it were necessary to corroborate this opinion, the authority of almost every leading obstetric writer might be quoted. Farr says the life of the mother, as well as that of the child, is endangered.* Every woman, says Bartley,† who attempts to produce abortion, does it at the risk of her life. There is no drug, says Male, which will produce it, without probably endangering the life of the mother.‡ Abortion, says Smith, is highly dangerous to the mother.§ When these medicines, says Burns, produce their effect, the mother can seldom survive.||]

The following case will show how difficult the perpetration of abortion sometimes is: “A young woman, seven months gone with child, had employed savine and other drugs, with a view to produce a miscarriage. As these had not the desired effect, a strong leather strap (the thong of a skate) was tightly bound round her body. This, too, availing nothing, her paramour, according to his own confession, knelt upon her, and compressed the abdomen with all his strength, yet neither did this effect the desired object. The man now trampled on the girl’s person while she lay on her back, and as this also failed, he took a sharp-pointed pair of scissors, and proceeded to perforate the uterus through the vagina; much pain and hemorrhage ensued, but did not last long. The woman’s health did not suffer in the least, and

* Farr, Med. Juris., p. 70.

† Bartley on Forensic Med., p. 5.

‡ Male, Epitome Juridical Med., in Cooper’s Tracts, p. 203.

§ Smith, Forensic Med., p. 205.

|| Midwifery, p. 283.

pretty much about the regular time a living child was brought into the world without any marks of external injury upon it. It died, indeed, four days afterwards, but its death could not be traced to the violence inflicted on the mother's person; all the internal organs appeared normal and healthy."*

Velpeau makes the following statement in relation to the consequences of using instruments to procure abortion: "Those who make use of them most frequently fail in attaining their object, and succeed only in seriously injuring the womb. I once prescribed for a female in whom such attempts had brought on a flooding, which conducted her to the verge of the grave; she suffered horribly from pain in the interior of the pelvis for two months, notwithstanding which abortion did not take place, and she is now a prey to a large ulcer of the neck of the womb. I opened the body of an unhappy creature who suffered from like attempts, which did not succeed any better than the one above mentioned. M. Girard, of Lyons, mentions a similar instance. Very recently, also, (Oct. 1828,) a young woman who became pregnant against her wishes, succeeded by such manœuvres only in producing an organic lesion of the uterus, which, after frightful suffering, led her to the commission of suicide."†

II. *Of the involuntary causes of abortion.* Of these it is not necessary to say much. They should always, however, be kept in view in medico-legal investigations on this subject, so that we may not attribute to criminal interference what is owing to some morbid derangement. Diseases of various kinds, as rheumatism, pleurisy, small-pox, typhus and yellow fevers, scarlatina, syphilis, and measles, operating on a system predisposed by nervous irritability, a diseased state of the uterus, the intemperate use of spirituous liquors, irritation of the neighboring organs, from costiveness, tenesmus of dysentery, hemorrhoids, prolapsus ani, diarrhœa, incontinence of urine, the irritation produced by medicines,‡ errors in regimen

* Professor Wagner, in the London Medical Quarterly Rev., vol. ii. p. 487.

† Meigs' Velpeau, p. 238.

‡ Dr. Dewees states that he has seen two cases of premature labor resulting, as he had reason to believe, from the action of blisters. (A Treatise on the Diseases of Females, p. 128.)

and diet, violent exercise, as in walking, dancing, riding, running, etc., accidental falls, a sudden contortion or shock* of the body, indulgence of any violent passion of the mind, whether joyful or sad, the relation of any unexpected intelligence, a great noise,† the appearance of any extraordinary object, previous abortion, fluor albus, excessive venery, accidental blows on the abdomen, the death of the fœtus, the attachment of the placenta over the os uteri, retroversion of the womb, hemorrhage, from whatever source, or at any period; all, or any of these causes may give rise to abortion without the imputation of the least criminality to the female.

The influence of the passions upon the uterine functions is peculiarly striking. It is an extraordinary fact that the melancholy and sadness caused by some great evil which is known and expected, are much less injurious to a pregnant woman than the annunciation of some important good, or even a trifling misfortune which is unexpected. Foderé relates the case of some pregnant women, who, during the horrors of the French revolution, were confined in dungeons, and condemned to death; their execution was, however, delayed in consequence of the peculiarity of their situation. Yet, notwithstanding the actual wretchedness of their condition, and the more terrible anticipation of future suffering, they went on to

* The pulling of a tooth, for instance, has been known to produce abortion. (Burns on Abortion, p. 64.)

† A case in which a *great noise*, as a cause of miscarriage was involved, was tried in 1809, at the quarter sessions of Franklin County, in Pennsylvania. The indictment charged that Taylor (the defendant) unlawfully, *secretly*, and maliciously, with force and arms, broke and entered at night the dwelling-house of James Strain, with intent to disturb the peace of the Commonwealth; and, after entering the house, unlawfully, willfully, and turbulently *made a great noise*, in disturbance of the peace of the Commonwealth, and did greatly misbehave in said dwelling-house, and did greatly frighten and alarm the wife of said Strain, whereby she *miscarried*, etc. The offence was held indictable as a *misdemeanor*. The jury found the defendant guilty; but the quarter sessions arrested the judgment, upon the ground that the offence charged was not indictable. The supreme court decided in this case that the judgment should be reversed, and the quarter sessions were directed to proceed to give judgment against the defendant. (Binney's Reports, vol. v. p. 277.)

the full time, during which period a fortunate change in the state of parties rescued them from unmerited punishment.*

Circumstantial evidence. In concluding the subject of foeticide, I shall make a remark or two upon the circumstantial evidence which may be adduced to prove the guilt of the accused. With regard to a female *concealing her pregnancy*, I cannot conceive with what justice any inference can be drawn prejudicial to her character. If her pregnancy be the result of illicit commerce, it is perfectly natural that she should make use of every effort to conceal her disgrace as long as possible. The mere fact of concealment, even if proved, ought to be considered as no evidence whatever of her guilt.

If she has been known to apply frequently to the same, or to different physicians, to be bled, especially in the foot, if she has endeavored to procure any of the medicines usually given to produce this effect, if any are found in her possession, or if she can be convicted of actually taking them, without medical advice, we have then the strongest circumstantial evidence which the nature of the case admits of, to pronounce her *intention* to have been criminal. These are circumstances, however, which do not strictly come under the cognizance of the professional witness; they are matters of fact, which must be decided upon from the testimony which may be offered by the other witnesses cited to appear in the case.

II. *Of the murder of the child after it is born, with an account of its various proofs and modes of perpetration.*

In every case in which an infant is found dead, and becomes the subject of judicial investigation, the great questions which present themselves for inquiry, are,—

1. What is the age of the child?
2. Was the child born alive?

* Foderé, vol. iv. p. 422.

3. If born alive, how long had it lived?

4. If born alive, by what means did it come to its death?

Having come to the conclusion that the death of the child is owing to violence, it is next to be ascertained who the perpetrator of it is. Should suspicion light upon a female, as being the mother of it, the questions to be determined concerning her, are,—

1. Whether she has been delivered of a child? And

2. Whether the signs of delivery correspond as to time, etc. with the appearances observed on the child?

These are the only points upon which the *professional witness* can be called to give his testimony, and to the consideration of these I shall accordingly confine myself.

Quest. I. *What is the age of the child?*

The importance of determining the age or degree of maturity of the child is so evident as to need no discussion. In all cases, therefore, it should be particularly investigated. For the necessary information on this subject, see chap. vii. part ii.

Quest. II. *Was the child born alive?*

There are two ways in which a child may be born alive.

1. It may be born, the cord may be pulsating, showing that it is alive, and yet it may not respire. In this state it may continue for a sufficient length of time to die from natural causes, or in consequence of criminal interference, before respiration has commenced. 2. It may be born and respire. The question, therefore, as to the child's having been born alive, may present itself in either of these forms, and requires investigation.

1. *Of the child born alive but not respiring.*

It must be evident that when a child is born alive, but has not yet respired, its condition is precisely like that of the foetus in utero. It lives merely because the foetal circulation is still going on. In this case none of the organs undergo any changes. The lungs remain as they are in the foetus, and

the organs circulating the blood are in the same state. If, therefore, it die before respiration commences, there are no changes which have taken place by which the fact of previous vitality could be established. This simple view shows how impossible it would be to prove that a child had been born alive, independently of respiration. In cases where wounds and ecchymoses are found on the body of the child, indirect evidence might be obtained from this source as to the existence of life at the time they were received. An interesting case of this kind is recorded by Devergie, an account of which will be found in a subsequent part of this chapter, under the head of "Examinations and Reports." At best, however, this could only apply to a very few cases. Where this kind of proof is absent, we have no means of deciding the question.

2. *Of the child born alive and respiring.*

Here respiration constitutes the test of a child's having been born alive, and the great point, therefore, to be settled is, *whether the child has respired*. The proofs by which this is to be established are all deduced from certain changes which take place in the system as soon as the vital process of respiration commences. These changes show themselves, not merely in the lungs, but in various other parts of the system; and it is only by examining them in an extended way that we can arrive at just and satisfactory conclusions.

These may be conveniently divided into three sections, viz.:—

1. Proofs derived from the respiratory organs.
2. Proofs derived from the circulating organs.
3. Proofs derived from the abdominal organs.

I. *Proofs of a child having respired, drawn from the respiratory organs.*

The points here to be investigated are the following: *the general configuration and size of the thorax; the situation of the lungs, their volume, their shape, their color, their consistency or density, their absolute weight, their specific gravity.*

There are three conditions in which the new-born child may be found. It may have respired perfectly. It may have

respired imperfectly. It may not have respired at all. It is with reference to these three conditions that the foregoing points are to be examined.

1. *The size and configuration of the thorax.* If the thorax of a child which has never respired be examined, it will be found narrow and flattened. On opening into it also, the general size of the cavity will be found small, and the diaphragm rising into it highly arched. In a child which has fully respired, on the contrary, the thorax externally will be found broad and rounded, while the internal cavity will be enlarged in all directions. The diaphragm, too, will be much less arched. In cases where the respiration has been less perfect, all these changes will of course be less marked. As the ideas connected with the terms *flat* and *arched*, *small* and *large*, are, in these cases, in a great measure only relative and arbitrary, it was suggested by Daniel, for the purpose of greater accuracy, that the chests of a number of infants should be subjected to measurement, in order to establish a standard of size both before and after respiration. With this view, he proposed that the circumference of the thorax should first be measured by a cord; then the height of it should be taken posteriorly, measuring along the dorsal vertebræ; and finally its depth, by taking the distance from the vertebræ to the sternum. Another mode is simply to measure the diameter of the thorax from one hypochondrium to the other, and from the sternum to the vertebræ. It must be evident, however, that such measurements must be very uncertain in their results, owing to a great variety of unavoidable causes, such as differences in the natural size of the child, etc.; and, therefore, the inferences drawn from them must inevitably lead, in many cases, to erroneous decisions. It is to be recollected that the thorax of a child is large or small, not so much according to its own actual size, as it is in proportion to the size of the child itself. For instance, in the body of a very small child the thorax may, nevertheless, be justly considered large, although much inferior in size to that of a child much larger. Hence any opinion formed from an examination and comparison of the thorax of different children must be exceedingly

doubtful and uncertain. The best way, after all, perhaps, is to trust simply to ocular inspection. A little experience in examining the appearance of different subjects will much better enable a person to decide correctly, than by any fixed standard of measurement. With regard to the size of the thorax as a sign of respiration or non-respiration, taken by itself it is not of much value. It is only in connection with other signs that it is of importance.

2. *The situation of the lungs.* Anterior to respiration, the lungs occupy a small space at the upper and posterior parts of the thorax, leaving the pericardium and diaphragm almost entirely and sometimes entirely uncovered. If only imperfect respiration has taken place, the lungs will be found occupying the lateral portions of the thorax also. If the respiration has been complete, and especially if it has been established for a certain length of time, they will cover almost entirely the pericardium as well as the arch of the diaphragm. Although some three or four cases are recorded by Schmitt,* which tend to weaken somewhat the force of this sign, yet, in general, it is one of considerable value. Like the preceding, however, it is not to be depended upon, except in connection with others.

3. *The volume of the lungs.* In the foetal state, the lungs are comparatively small. As soon as respiration is established, they become distended with air, and, of course, increased in volume. The degree in which this takes place will vary, as the respiration has been more or less perfect. For the purpose of rendering this test more accurate and available, various modes have been proposed to ascertain the exact increase of volume of the lungs in consequence of respiration. The only one which I shall notice is that proposed by Daniel.

Daniel's mode. This is founded upon the principle, that every solid body plunged into a liquid displaces as much of that liquid as the space which it occupies. If, then, a solid body be plunged into a vessel of water, it will cause the water to rise in the vessel just in proportion to the quantity which is displaced. It is upon this principle that Daniel proposed that

* Dict. des Scien. de Med., art. *Docimasie Pulmonaire*.

experiments should be made upon lungs that had not respired, as well as those which had respired, for the purpose of ascertaining the different heights to which the water would rise. In the case of lungs which had respired, it is evident that these organs would not sink. To obviate this difficulty, he recommends that they be placed in a wire basket, the volume of which is known, and which may afterwards be deducted from the volume of the lungs.* With regard to this test, however, it does not appear that any conclusions can be drawn from the *absolute* volume of the lungs which can be depended upon with any degree of certainty. The best mode of judging of the volume of the lungs is by the space which they occupy in the chest and by their relative situation to the pericardium and diaphragm.

4. *Shape of the lungs.* In this respect, a striking change takes place in some portions of the lungs, in consequence of respiration. In the foetal state, the edges of the lungs are sharp, and the lower margin of the left upper and right middle lobes pointed. After respiration has taken place, the edges of the lungs become rounded, while the margins of the left upper and right middle lobes become obtuse. The degree in which these changes take place differs as the respiration has been more or less perfect.

5. *Color of the lungs.* In the foetus the color of the lungs is of a *brownish-red*, resembling very much the color of the liver in the adult and of the thymus gland in the foetus. The resemblance in color between the foetal lungs and the thymus gland is important, as it furnishes an immediate standard of comparison. After perfect respiration has taken place, the lungs assume a pale-red or pink color. Where the respiration has only been imperfect, some portions will be found of a brownish-red, while others will be pink. In appreciating the value of this test, it is to be recollected that a number of causes, besides the presence or absence of respiration, may modify the color of the lungs. In the first place, artificial inflation changes the color of the lungs. The changes produced in the color of the lungs by artificial inflation vary

* Dict. des Scien. de Med.; Western Medical Reporter, vol. i. p. 322.

with the manner in which the process is performed. If the lungs of a child, which has never respired, be taken out of the chest and separated, and a small quill introduced into one of the bronchial tubes, these organs can be very easily and fully inflated, and they then assume a uniformly bright-red appearance. If, however, air be merely introduced in the ordinary way in which it is practiced for the purpose of resuscitating a child, by blowing with the mouth, then the inflation of the lungs is very imperfect, and the change of color is only partial, corresponding with the parts of the lungs which had been permeated by air. With regard to the exact color produced by artificial inflation, experimenters differ. According to Bernt, if any change of color is produced, it is only a pale or grayish-red.* Devergie says it is white, while Mr. Jennings says that it causes the scarlet tint of respiration. Whichever of these opinions may be nearest the truth, one thing is certain, that the change of color produced by artificial inflation approximates sufficiently near to that of respiration to render any distinctions of color of little value. There is one point, however, of importance, in connection with the color of the lungs, which may aid in discriminating between artificial inflation and *perfect* respiration, and that is, the *extent* to which the change of color has gone. As already stated, in cases of artificial inflation the change of color is only in portions of the lungs. Where respiration has been perfect, on the other hand, there is a general change of color in the whole of the lungs. Between artificial inflation and *perfect* respiration, this, then, would furnish a ground of distinction. Between artificial inflation and *imperfect* respiration, this would be of no avail. In both the air has only partially pervaded the lungs, and of course the change of color in both would be only partial. The mere color of the lungs, then, would fail to show whether it was owing to imperfect respiration or inflation. Other tests would have to be depended on. In the second place, disease may modify the color of the lungs. Thus, for example, where new-born infants die from sanguineous en-

* Edinburgh Med. and Surg. Journal.

gorgements of these organs, notwithstanding respiration may have been perfectly established, the color differs in various degrees from that produced by respiration in healthy lungs. Lastly, the action of the atmosphere upon the lungs changes their color. On opening the chest of a still-born child, it will be found that the lungs will speedily assume a much brighter color. From all this, it is apparent that observations on the color of the lungs must be made with great caution, and the necessary discrimination made between the various causes which may have exerted an influence in modifying it.

Like the other signs of respiration, the color of the lungs cannot be depended upon by itself. It must always be taken in connection with the other signs.

6. *Consistence or density of the lungs.* In the foetal state the lungs are dense, resembling liver. On pressure, or when cut into, they do not crepitate. After perfect respiration, they become soft and spongy—air bubbles may be squeezed out of them, and when pressed or cut into they give out a crepitus. When the respiration has been less perfect, some portions will be found dense, while others will be spongy and crepitant. This is a valuable and striking test. The only serious objection to it is, that artificial inflation produces precisely the same change in the lungs. The modes of distinguishing between these two will be noticed under the head of the Hydrostatic test.

7. *The absolute weight of the lungs.* From the peculiarity of the vascular system in the foetus, only a small portion of the blood goes the round of pulmonary circulation, the greater part passing through the foramen ovale and the ductus arteriosus. As soon, however, as respiration is established, the whole mass of blood passes through the lungs. It is evident, then, that the weight of the lungs must be increased in consequence of respiration, and the increase of weight will be just in proportion to the quantity of blood which has been thus introduced into these organs.

Upon this is founded what is generally known as the *Static test*. To render this test available, it is obvious that some standard weight of the lungs in the two states must be fixed

upon, otherwise no conclusions could safely be drawn in any individual case. For this purpose two modes have been proposed. The first is to compare the weight of the lungs with the weight of the body of the child. This is what is commonly called Ploucquet's test. The second is to take the average actual weight of a certain number of lungs, both in the foetal state and after respiration is established.

First form of the Static test. This was announced in 1782, by M. Ploucquet, and is founded on the fact above stated, that the lungs become heavier than anterior to respiration. As the weight of the body of the child cannot undergo any change, he suggested that a comparison of the weight of the body of the child with the weight of its lungs, would furnish a test by which to determine whether it had respired or not. From the few observations which he made, he came to the conclusion that, where respiration had not taken place, the proportion between the weight of the lungs and that of the body was as 1 to 70; while on the other hand, where respiration had taken place, it was as 1 to 35; or, in other words, that the weight of the lungs was doubled in consequence of respiration. A test so beautiful as this, and founded apparently upon principles so truly physiological, it was hoped would aid, very materially, in solving this important question. Numerous experiments and observations were accordingly made to test its accuracy in actual practice; and the result has been, that while some appreciate it very highly, by others it is viewed as altogether uncertain. In ten cases which I have examined, the proportions are as follows:—

Children that had respired.		Children that had not respired.	
1	1 : 43	1	1 : 58
2	1 : 35	2	1 : 36
3	1 : 44	3	1 : 49
		4	1 : 32
Average	1 : 40	5	1 : 50
		6	1 : 52
		7	1 : 54
		Average	1 : 47

Now the conclusion to be drawn from these observations is manifestly adverse to the accuracy of this test. Taking the

individual cases, there is not a single one of those which had not respired which reach the proportions laid down by Ploucquet; while in the same list, cases 2 and 4 are very nearly the proportions laid down for children that have respired. If we take the general averages, too, of the cases, we find that they do not correspond with the proportions suggested by Ploucquet.

Since the time of Ploucquet, a great number of observations have been made by other persons, and as the result, they have all fixed upon different proportions. The following are some of them:—

	Before respiration.	After respiration.
Schmitt	1 : 52	1 : 42
Chaussier	1 : 49	1 : 39
Devergie	1 : 60	1 : 45

These, as being deduced from a large number of cases, come nearer the true proportions than those of Ploucquet, and correspond more nearly with my own observations. Still, however, it is to be recollected that they are mere average numbers, and therefore do not meet the circumstances of individual cases, which of course they ought to do, for the purpose of rendering them practically available. It may be asked, then, is this test to be rejected altogether? As infallible, certainly. Yet it may furnish corroborative proof, and should, therefore, never be neglected. When taken in connection with the other signs, it may aid very materially in coming to a correct conclusion.

Second form of the Static test. By some it has been supposed that the actual weight of the lungs would furnish another criterion of the fact of respiration having taken place. Accordingly an average weight of 1000 grains has been proposed for the lungs of a child which has respired, and 600 grains for those of a child which has not respired. A moment's reflection, however, must convince us that this is still more uncertain than the test of Ploucquet. Children born at the full time, we know, differ greatly in their weight, and of course there must be a corresponding difference in the weight of the lungs. I have known a child born at the full time,

healthy and perfect in every respect, and yet weigh only four pounds, while children weighing eight, nine, and ten pounds, are by no means uncommon. The lungs, therefore, of a child which had not respired, of nine pounds, would probably weigh more than those of a child of four pounds, which had respired, and such has been found to be the case by actual observation. In the cases which I have examined, the following were the weights:—

Before respiration.		After respiration.	
1	540 grains.	1	396 grains.
2	720 “	2	800 “
3	900 “	3	814 “
4	890 “	Average..... 670 “	
5	900 “		
6	690 “		
7	689 “		
Average..... 761 “			

An analysis of these weights will show at once how fallacious this test must be. We have here, in three cases before respiration took place, the lungs weighing more than in those which had respired, while the general average weight is greater in those which had not respired—just the reverse of what it ought to be according to this test.*

8. *Specific gravity of the lungs.* It is to Galen that we are indebted for the first notice of the fact that the lungs are rendered specifically lighter in consequence of respiration.† The

* From the degree of uncertainty hanging around the test of Ploucquet, Orfila was inclined to believe that a more definite proportion might exist between the weight of the *heart* and the *lungs*, and that this might serve as a test in these cases. He immediately put it to the trial of experiment. For this purpose he took out the heart and lungs from a number of *fœtuses*, having previously cut off the *venæ cavæ* and pulmonary veins, as well as the pulmonary artery and aorta, as near as possible to these organs. He then opened into the heart, to let out all the blood which it contained. After this, having washed them, he weighed them separately. As the result of his experiments, Orfila drew the conclusion, that the relative proportion between the weight of the heart and the lungs was too inconstant and uncertain to draw any just inferences as to the fact of respiration having taken place. (*Leçons de Médecine Légale*, vol. i. p. 349; second edition.)

† *Opera Galeni de usu Part.*, lib. xv. cap. 6, pp. 145, 146.

knowledge of this fact was not, however, applied to the purposes of forensic medicine until after the lapse of several centuries. Zacchias, who flourished in the beginning of the seventeenth century, and who may be styled the father of forensic medicine, passes it over in silence, and it was not until the year 1682 that it was first applied by Schreyer as a test in cases of child-murder. The principle upon which this test is founded, is the difference produced in the specific gravity of the lungs, in consequence of the introduction of air into them. In the whole range of medico-legal investigations, there is none more important, and at the same time more difficult, than that which relates to the validity of this test as a proof of respiration. From the time of its first promulgation, it has divided the opinions of medical jurists, and even at the present day it still remains a subject of controversy. When it is recollected how great and just an importance has been attached to it in trials of child-murder, and how embarrassing to courts and to juries have been the contradictory sentiments advanced concerning it by medical witnesses, the propriety of a full investigation of the subject cannot be questioned.

For the purpose of rendering the discussion of it as distinct as possible, I shall first state the general facts upon which the test is founded, and then consider the various objections to which it is liable.

Hydrostatic test.

On putting the lungs of a still-born child into water, it will be found that they sink rapidly to the bottom of the fluid. On the other hand, if the lungs of a child which has breathed perfectly be put into water, they will be found to float high in that fluid. If the breathing has only been imperfect, the lungs will float or sink, according as a greater or less portion of these organs has been penetrated by air. On cutting the lungs into pieces, those portions into which air has been introduced will float, while the rest will sink.

From these facts the general conclusions are, that when the lungs float, the child has respired, when they sink, that the child has not respired, when portions of the lungs only float, that the respiration has been partial and imperfect.

Let us now see whether it is safe to trust to the evidence furnished by this test, by considering the different objections which have been urged against it. These are twofold; for, it is claimed—*First*, that the lungs may float, though the child has not respired; and *second*, the lungs may sink in water, and yet the child have respired.

Objections against the Hydrostatic test, on the ground that the lungs may float, and yet the child have not respired.

Obj. 1. A child may not have respired, and yet the lungs may float in water from having undergone *putrefaction*.

Strange as it may appear, it has nevertheless been a subject much debated, what the effects of putrefaction are upon lungs that have never respired; some asserting that it renders them specifically heavier than water, while others of equal respectability maintain a contrary opinion. Both parties adduce experiments in proof of their particular assertions. The most accurate, I believe, were those performed by Mayer, and as they place this subject in a very just point of view, and relieve it of much of the obscurity in which it has been involved, it may not be improper to present a summary of his observations. From a very extended series of experiments continued during a number of years, and executed with great care and precision, Mayer found, on putting into water the lungs of still-born children, that they sunk to the bottom. After an interval of two or three days, the water in which they were left became turbid, the lungs changed in color and increased in volume; here and there an air bubble arose to the surface of the water, and at the same time a putrid odor became perceptible. All these appearances continued to increase daily until the sixth, seventh, or, at the latest, the eighth day, when the lungs, both entire and cut into pieces, floated in the water in which they became putrid. On transferring the lungs to vessels containing clean water, they still continued to float, although on the slightest compression they instantly sunk. Lungs placed in water, and exposed to the rays of the sun, swam on the sixth day. If they were suffered to putrefy

where there was a free current of air, they rarely floated before the tenth or eleventh day. After the lungs had once floated they remained in that state, emitting daily a more offensive odor, and acquiring an increased volume, until the twenty-first, or at the latest, the thirty-fifth day. After that period they gradually sunk down, without a single exception, to the bottom of the vessel, nor did they afterwards betray any disposition to float, although kept for seven weeks, and in some instances a much greater length of time.*

The foregoing experiments were made in the month of August. The lungs, both entire and cut into sections, were immersed in pure water, and contained in vessels convenient and capacious. In short, every precaution seems to have been scrupulously observed to render the experiments accurate and satisfactory.

My own experiments on this subject, although not numerous, go to confirm, in every essential point, those which have been detailed.† I will merely state that I found a great difference in the length of time which the lungs took to float, according to the season of the year. In the month of August, exposed to the rays of an intense sun, they floated in less than twenty-four hours, while in the month of April they took between two and three weeks.

If it should be objected to these experiments that they are not satisfactory, because the lungs were separated from the rest of the body, it will obviate every difficulty to state a case

* Mayer, in Schlegel's *Collectio Opusculorum Selectorum ad Medicinam Forensem Spectantium*, vol. i. pp. 262, 263, 264.

† Recently some experiments on this subject have been reported by Prof. Gross, of Cincinnati. In the month of July, he placed the right lung of a still-born infant in an open glass vessel, exposed to the rays of an intensely hot sun. At the end of twenty-four hours, it was found to swim on the surface. The whole organ was expanded and offensive, and the surface was covered with air bubbles. At the end of seventy hours it still floated both in the water in which it was originally immersed and in the clear fluid. The left lung, taken from the same child, was kept for twenty-four hours in a dry glass vessel and then placed in rain water. In twenty-four hours afterwards it floated. See an able review of the *Elements of Med. Jurisprudence*, by Prof. Gross, in the *Western Journal of Med. and Phys. Sciences*, for July, 1836.

in which the same result was observed in lungs which had not been taken out of the chest until after they had become putrid. A case of this kind is related in which a child was still-born, and had become putrid before it was examined. On dissection, its vessels were found full of air, and vesicles distended with air were seen on the surface of the lungs. On putting these organs into water they floated.*

From the foregoing experiments it thus appears that in the *incipient* stage of putrefaction, lungs that have never respired will float in water; whereas they will sink if it has continued long enough to completely destroy their organization, and thus extricate the air contained in them. These results have been corroborated by numerous other observations and experiments, and their truth cannot be doubted. It seems singular, indeed, that they should ever have been questioned, when a case perfectly analogous is witnessed in every person that is drowned. The body at first sinks, afterwards rises to the surface, when putrefaction has generated air sufficient to render it specifically lighter than water, and finally descends again upon the extrication of that air.

Such being the effect of putrefaction, it becomes a question of great importance to determine in what way we may discriminate between the floating of the lungs, as caused by natural respiration, and that which is the result of decomposition.

Independently of the changes produced in the color and general appearance of the lungs by putrefaction, there are other very characteristic marks by which they may be distinguished.

(a.) By the appearance of air bubbles on the surface of the lungs. On this subject, Dr. William Hunter lays down the following rule: "If the air which is in the lungs be that of respiration, the air bubbles will hardly be visible to the naked eye; but if the air bubbles be large, or if they run in lines along the fissures between the component *lobuli* of the lungs, the air is certainly emphysematous, and not air which had

* Edinburgh Medical Essays, vol. vi. p. 450.

been taken in by breathing.”* Jaeger had before this made a similar observation. In lungs floating from putrefaction, he describes the air as contained in the form of bubbles under the external membrane of those organs, where the air introduced by respiration never finds its way.† This distinction is founded in truth, and accordingly has been adopted by the best writers on forensic medicine.

(b.) By the ease with which the air can be extricated from lungs which float in consequence of putrefaction. The evidence of this is to be found in the fact, that if lungs of this description, or any portions of them, be squeezed in the hand, they will immediately sink in water. On the contrary, no compression, however strong, can force out so completely the air from lungs that have respired, as to cause them to sink. This is a test which may be relied on with much certainty.

(c.) By cutting out a portion of the internal part of the lungs, and putting this in water to ascertain whether it will float. If the lungs floated as the result of putrefaction, this internal portion will sink, inasmuch as the air generated by decomposition is confined to the surface of the lungs. If, on the contrary, the lungs have respired, the internal part will float more readily even than that toward the surface.

(d.) By the absence of crepitation in the substance of the lungs, in cases of putrefaction. This is owing to the fact that the air, generated by putrefaction, exists in the external portions of the lungs, and is not found in the air-cells, as in natural respiration.

(e.) By an examination of the other viscera of the body. Numerous observations have established the fact, that with the exception of the bones, the lungs resist putrefaction longer than any other part of the body. Faissole and Champeau, in experiments which they made upon drowned animals, observed that the lungs remained sound after the whole of the body had

* On the uncertainty of the signs of murder in the case of bastard children, by William Hunter, M.D., F.R.S.; Medical Observations and Inquiries. of London, vol. vi. p. 284.

† Jaeger, in Schlegel, vol. v. p. 111.

become putrefied.* Mahon noticed the same fact in his dissections of dead bodies.† Camper ascertained, by experiments, that the head became so far decomposed by putrefaction that the slightest force was sufficient to detach the bones of it from each other, as well as those of the arms and legs, before the lungs began to participate in the putrefaction.‡ I observed the same thing in three instances. This was especially the case in a child found floating in the river. The body had become quite putrid, the scalp was distended with air, and so were the bowels. The lungs, on the contrary, were perfectly natural in their appearance, and untouched by putrefaction. From these facts, the conclusion evidently follows, that if the rest of the body of the child which is the subject of examination be unaffected by putrefaction, it may very confidently be inferred that the floating of the lungs is not owing to that cause.

By a careful application of the foregoing tests, and especially the first and second, little or no difficulty can arise in deciding whether the lungs float from putrefaction or from respiration.

Obj. 2. It is objected that there may be a peculiar *emphysematous condition of the lungs*, which may make them float in water, even though respiration has never taken place.

The fact of such a condition of the lungs sometimes occurring, although noticed previously,§ was first prominently brought forward by Chaussier, in some cases where he was obliged, in consequence of the smallness of the pelvis, to deliver by the feet, and where death took place during delivery. The lungs, on being put into water, floated. Chaussier explained this occurrence by supposing that in consequence of the violence done to the lungs during the delivery, an effusion of blood had taken place, the alteration of which had disengaged a quantity of air. Cases of this kind must, as a matter of course, be very rare. When they do occur, the mode of

* Mahon, vol. ii. p. 400.

† Ibid.

‡ Dissertation on Infanticide, by W. Hutchinson, M.D., p. 47.

§ Alberti noticed it in 1725, and Schmitt in 1806. (Edinburgh Medical and Surgical Journal, vol. xxvi. p. 374.)

discriminating, according to Chaussier, is by squeezing them in the hand. On putting them into water after this, they will be found to have lost their buoyancy, and will sink precisely like lungs which float in consequence of ordinary putrefaction. In these cases the aeriform fluid exists only in the cellular tissue.* Instances of this kind, however, can never offer any difficulty in cases of infanticide.

Obj. 3. It is objected that a child may not have respired, and yet its lungs may float in water, in consequence of their having been *artificially inflated*.

It has been doubted by some whether artificial inflation of the lungs can ever be effected. Heister states that he proved, by actual experiments, that air cannot be blown into the lungs so as to cause them to float.† Hebenstreit also doubts whether it can be accomplished, in consequence of the mucus which is usually found to fill the fauces of a new-born child.‡ Röederer, from the failure of his experiments on this subject, was led to the conclusion that it can only be effected after the child had previously breathed.§ Brendel is still more positive on this point. He believes artificial inflation to be utterly impossible, and assigns two reasons for his skepticism. The first is the resistance which is made by the thorax and diaphragm; and the second is the difficulty of introducing a pipe into the glottis, without which he thinks it is impossible to inflate the lungs. He adds, moreover, in confirmation of his opinion, that he made experiments upon pups that were killed while yet in the uterus; and although he attempted to force in the air by a bellows, yet no change was effected upon the lungs, and they sunk when put into water.||

A contrary doctrine is, however, maintained by a very large majority of the most respectable authorities in forensic medi-

* *Considerations Médico-Légales sur l'Infanticide*, par A. Lecieux, pp. 55, 56.

† Morgagni's Works, vol. i. p. 536.

‡ *Anthropologia Forensis*, etc., p. 405.

§ *Collectio Opusculorum Selectorum ad Medicinam Forensem Spectantium*. Curante Dr. J. C. T. Schlegel; vol. v. p. 112.

|| *Medicina Legalis sive Forensis*, p. 186.

cine. Low admits the possibility of it, and tells us that Bohn, together with the medical faculty of Leipsic, concurred in the same opinion.* Ludwig says it is certain that air may be artificially blown into lungs which have never respired, and that they will afterwards float in water.† In several experiments made by the celebrated Camper, to test this matter, the result was uniformly in favor of this opinion.‡ Jaeger, Buttner, and Schmitt concur in the same, as do most of the French and English writers. Dr. Gooch says he inflated the lungs of a still-born child, and they floated in water as if the child had breathed some days.§ Mr. Jennings,|| as the result of experiments made by himself, states that the lungs may be inflated without the use of instruments, and by simply blowing air into the child's mouth, so that they will float in water, crepitate on pressure, and change their color from chocolate to bright scarlet.¶

From the foregoing detail of authorities, it is quite evident that although artificial inflation of the lungs of a child born dead is a thing perfectly practicable, yet it is not accomplished with as much facility as many have imagined. I am aware that some writers speak with a good deal of certainty in relation to the ease with which this may be practiced. It is questionable, however, whether they have not drawn their in-

* *Theatrum Medico-Juridicum*, cap. xii. p. 623.

† *Institutiones Medicinæ Forensis*, etc., p. 97.

‡ Schlegel, vol. v. p. 112.

§ *A Practical Compendium of Midwifery*, p. 96; American edition.

|| *Trans. of the Prov. Med. and Surgical Association*, vol. ii. p. 440.

¶ Professor Gross, of Cincinnati, who appears to have paid considerable attention to this subject, expresses the following opinion: "We are decidedly of opinion that artificial inflation of the lungs is a very difficult matter; and we believe that the complete distention of these organs can only be effected where a tube is introduced into the mouth of the larynx. A case which recently came under our notice greatly corroborates this opinion. Here the child was still-born, and in consequence of the delay occasioned by a malpresentation; and although repeated efforts were made by our friend, Dr. E. Read, the attending physician, to resuscitate the infant, yet we found, on examination, that only a small portion of the right middle lobe, together with a few lobules of the right superior and right inferior lobes, were filled with air." (*Western Med. Journal*, July, 1836, p. 80.)

ferences, in some cases at least, from insufficient data. If the trachea of a still-born child be opened, and a tube introduced, or if the lungs be separated and a quill be introduced into the bronchial tubes, it is doubtless a very easy matter to inflate the lungs. Any one can make the experiment and satisfy himself perfectly on this subject. This, however, is a widely different thing from blowing air into the mouth of a child, and that, too, by persons ignorant of the mode of doing it effectually. If physicians confessedly have failed in accomplishing it, how much more likely is this to happen to persons out of the profession! It is very doubtful whether inexperienced persons would ever succeed in the process. The foregoing considerations I conceive to be important, because they go to show that the cases in which this difficulty may present itself cannot occur so often as some have supposed. There is another circumstance connected with this subject which is deserving of notice. Although ordinary inflation may introduce a sufficient quantity of air into the lungs to cause them to float, yet the *entire lungs* can never be distended in this way. This was the fact in the case of Mr. Jennings, above alluded to, as also in the case of Prof. Gross. If this be so, it would limit the difficulty arising from artificial inflation to cases in which the lungs are only *imperfectly* permeated by air. Where the lungs are uniformly and perfectly distended it would at once do away with any objection from this source. Notwithstanding all this, the difficulty would still exist, and it certainly presents the most formidable of all the objections to the Hydrostatic test. The difficulty is still further increased by recollecting that artificial inflation not merely causes the lungs to float, but produces other changes analogous to those of respiration. It changes the volume, the color, the density, and the shape of these organs very much in the same way that vital respiration does. How, then, are we to distinguish between the effects of respiration and artificial inflation? The following tests will aid in the solution of this difficult problem:—

(a.) The first test is founded on the fact that the lungs of a child which has not respired, but which float in consequence of

artificial inflation, may, by pressure, have the air expelled from them so as to sink in water; while, on the contrary, in a child which has respired, it is impossible, by any pressure, to force out the air so completely from the lungs as to make them sink in water. This test was originally suggested by M. Beclard, and since then the accuracy of it has been fully supported by other observers, and more especially by Mr. Jennings, of England. My own experiments also go to confirm it. In applying this test, certain precautions are necessary to insure success. The pressure must be carried to a suitable extent, or it will fail. The mode adopted by Mr. Jennings was to put the lungs in a linen cloth, and then wring the cloth at each end. After this, they were placed under a board loaded with weights. If sections of the lungs be made, pressing and squeezing them between the fingers for a certain length of time will be sufficient to make them sink. In lungs which have respired, no degree of pressure will make them sink. If, however, their texture be completely destroyed by pounding them, they may be made to sink. This, therefore, should be avoided.

(b.) A second, founded upon the difference in the *weight* of the lungs in the two cases. When vital respiration takes place, it is accompanied by an increased flow of blood to the lungs and a consequent increase of weight. The artificial inflation of lungs which have never respired is not accompanied with any increased flow of blood to these organs, and therefore there is no increase of weight. Taking the weight of the lungs, therefore, according to Ploucquet's test, or the actual weight of the lungs, is one mode of discriminating between natural respiration and artificial inflation.

(c.) A third test may be deduced from the ductus arteriosus. The value of this test will be discussed hereafter, and although not to be infallibly relied on, as corroborative proof it should not be disregarded.

(d.) A fourth test has been suggested by Mr. Marc. He considers that art can never completely inflate the lungs; and from the greater difficulty which attends the admission of air into the *left* lung, he is induced to believe that in cases of

artificial inflation, the inferior extremity of that lung will float but imperfectly, or not at all.

From what has been already stated, there is every reason to believe that ordinary artificial inflation can never distend the entire lungs. In cases, therefore, where the lungs are fully pervaded by air, and every portion of them floats in water, this test would be conclusive. In cases, on the other hand, where only a portion of the lungs had been penetrated by air, this test would be of no avail. Now such cases occur continually. In one of the cases reported by Mr. Jennings, the child breathed imperfectly for half an hour, and yet the right lung only floated, the left sinking in the water, with the exception of a small part about its root.* Indeed, it is not positively settled whether the lungs, in any case, become immediately filled with air as soon as respiration commences. From the experiments of Mr. Portal, long since made, it would at any rate appear that the right lung receives air sooner than the left, and he accounts for this interesting phenomenon, by showing that there is a difference in the size and direction of the bronchi leading to the two lungs. Upon examination, he found the right one about one-fourth part thicker, and one-fifth shorter than the left; besides, he found the passage to the right to be more direct than that of the left.†

From these facts, therefore, it is evident that the imperfect distention of the lungs, by artificial inflation, could be no criterion of distinction in a large number of cases.

Of all the preceding modes of distinguishing between respiration and artificial inflation, the two first are the most to be relied on.

From the preceding examination of objections to the *Hydrostatic test*, I think that we may safely come to the following conclusions:—

1. That when the lungs *float* in water, it must be from one

* Transactions of the Provincial Medical and Surgical Association, vol. ii. p. 437.

† Duncan's Medical Commentaries, vol. i. p. 245; American edition.

of four causes: natural respiration, putrefaction, emphysema, the artificial introduction of air.

2. As the lungs may float from other causes besides respiration, their mere floating is no proof that the child has respired.

3. As, however, it is possible to discriminate between the floating of natural respiration and of that which is the result of other causes, it follows,—

4. That with due precautions, the floating of the lungs may be depended upon as a decided proof that the child has respired.

Objections to the Hydrostatic test, on the ground that the lungs may sink in water, and yet the child have respired.

Obj. 1. Although the child has breathed, yet the lungs, in consequence of disease, may have their specific gravity so increased as to make them sink in water.

This objection has been deduced chiefly from analogy. It is a fact well established, that in consequence of various inflammatory and congestive diseases, the lungs of adults may become so morbidly changed as to sink in water, and hence it has been inferred that the same might occur in the new-born child. To render this objection valid, it must be taken for granted that such diseases had already commenced in the foetus antecedently to birth. Now, although the foetus may be thus affected, yet the cases in which this occurs must be exceedingly rare, and for the obvious reason that it is not exposed to the influence of the causes which ordinarily produce these diseases. Haller, notwithstanding his great experience and extensive learning, relates no instance of it, and expressly asserts that they are very rarely found in the foetal state. “In adulto homine *aliquando*, in fetu *rarissime*, ut pulmo calculus, schirris, aliave materie, morbose gravis in aqua subsideat, etsiquam respiraverit.”* Brendel, in speaking on this subject, relates only a single case of an abortive foetus which

* Element. Physiologiæ, vol. iii. p. 281.

had scirrhus lungs, and considers it a singular occurrence.* Billard, notwithstanding his extensive observations on this subject, relates only three cases of new-born infants, in whom there was reason to suppose that inflammation of the lungs commenced previous to birth.

I shall only add, in confirmation on this point, the opinion of Dr. Duncan, Jr., the accomplished editor of the Edinburgh Medical and Surgical Journal. "Unquestionably, a piece of inflamed lung will sink in water, like a piece of liver, *but we doubt that such inflammation was ever observed in the lungs of a new-born infant*, concerning which a question of its having been still-born could arise; and we deny the fact, that any portion of lungs which have breathed, will ever be rendered specifically heavier than water, by the mere settling of the blood in the lower portions after death."†

Rare, however, as these cases are, it must be admitted that the lungs of new-born infants may occasionally be so congested or diseased that they will sink in water, notwithstanding respiration may have taken place. In these cases, the modes of determining whether respiration has actually taken place or not, are the following:—

In the first place, where the lungs are simply engorged with blood, they may be made to float by depriving them of their superabundance of blood. This may be accomplished by making incisions into the lungs and then subjecting them to pressure, or by leaving them for a certain time immersed in water. In either of these ways they will be made to float. In foetal lungs, on the contrary, no pressure or immersion in water will ever produce this effect.

In the second place, where actual disease of the lungs has taken place, although these organs, when entire, may sink, yet when divided into a number of pieces, some of them will be found to float. Foderé states, as the result of numerous experiments made upon diseased lungs, that although they sank in water when entire, yet when cut into pieces he invariably found some of the fragments to float.‡

* Medicina Legalis, p. 10.

† Edinburgh Medical and Surgical Journal, vol. xii. pp. 79, 80.

‡ Foderé, vol. iv. p. 487.

Besides the foregoing, there is another circumstance of importance to aid in obviating any difficulty in this case. If the lungs are so diseased as to render them specifically heavier than water, the cause of this will be at once evident on a suitable examination of these organs.

Obj. 2. It has been objected that a child may have actually breathed, but yet so imperfectly that the lungs shall not have received air sufficient to make them float.

In support of this objection, facts of a very pointed nature have been adduced. Heister relates the case of a very feeble infant, whose lungs sunk in water, though it lived nine hours after birth.* And a late writer on infanticide states that he had been informed by a physician to the Foundling Hospital at Naples, who opened daily, on an average, the bodies of ten or twelve infants, which had generally died within twenty-four hours after birth, that he had hardly ever found more than a very small portion of the lungs dilated by air: this portion was frequently not larger than a walnut in its green shell, and but rarely larger than a hen's egg, and it was commonly situated on the right lung.†

The same method must be here adopted as in cases where the lungs are diseased; they must be cut into several parts, and experiments instituted upon each. However imperfect the respiration has been, some portion of the lungs will contain air, and this will float. In cases of this kind, additional evidence of respiration may frequently be obtained by the application of the Static test, and by examining the state of the ductus arteriosus and of the umbilical cord.

From the foregoing, it may therefore be concluded,—

1. That when the lungs *sink* in water, it must be from one or other of the following causes: the total want of respiration, feeble and imperfect respiration, some diseases of the lungs, rendering them specifically heavier than the water.

2. As the lungs may sink from other causes than the ab-

* Morgagni's Works, vol. i. epist. xix. p. 536.

† A Dissertation on Infanticide, in its relations to Physiology and Jurisprudence, by Dr. Hutchinson; 1820.

sence of respiration, their *mere sinking* is no decisive proof that the child has not respired.

3. As, however, the sinking from the want of respiration may be distinguished from that which is the result of other causes, it follows,—

4. That, with due precautions, the sinking of the lungs is a safe test that the child has not respired.

From the preceding discussion, although it seems that the general conclusion is decidedly in favor of the accuracy of the Hydrostatic test, yet nothing can be plainer than the necessity of an extensive acquaintance with the subject, to enable the professional witness to make a just application of it. From what has already been stated, it must be evident that the Hydrostatic test does not consist merely in putting the lungs in water to ascertain whether they are specifically lighter or heavier than that fluid. The test thus applied would lead to innumerable errors. On this account, therefore, it is necessary to present a summary of the mode in which it is to be used.

Mode of applying the Hydrostatic test.

(a.) Having opened the chest, and noticed the position, color, volume, etc. of the lungs, they are to be taken out, in the manner to be noticed hereafter when I come to speak of the mode of conducting dissections. The lungs are then to be specially examined to see if there be any appearance of disease, or of putrefaction, or of anything unnatural about them, and whether they crepitate on pressure.

(b.) A convenient vessel containing water is now to be provided, and particular attention should be paid to the temperature of the water in which the lungs are to be immersed. The reason of this will be perfectly obvious, when it is recollected that the specific gravity of water varies with its temperature; thus, for instance, water at 100° is lighter than water at 60°, and still lighter than at 40°. Besides, if the water be too hot, it will have the effect of expanding the lungs, and thus favor their floating, especially when there already exists a tendency to putrefaction. If, on the contrary, its temperature be too

low, the air-cells may be contracted, and some of the air be thus expelled. The temperature of the water should therefore be regulated by that of the surrounding air. Another precaution relative to the water is, that it should not be impregnated with *salt*, for, in consequence of the greater specific gravity of saline water, a body might float in it which would sink in fresh water.

(c.) The lungs, with the heart attached, should then be cautiously placed in water, and it should be observed whether they float or sink; if they float, whether above the surface of the water, or just under it; if they sink, whether they do so rapidly or gradually.

(d.) The lungs are then to be separated from the heart and accurately weighed, after which they should be replaced in the water to see whether they sink or float, and in what way. If one lung floats, observe whether it be the right or the left. The lungs should now be subjected to suitable pressure, to see whether after this they will sink or float.

(e.) Each lung should now be cut into a number of small pieces, and in doing so it should be observed whether there be any crepitation, whether they are gorged with blood, and whether there be any traces of disease. Each section is then to be put into the water. If any, or all of them float, they are to be taken out and subjected to proper pressure, and then replaced in the water to determine whether after this they sink or float.

Having gone through these different processes, the conclusions to be drawn from them are evident. If the lungs, with the heart attached and separated from it, float in water, if, when cut into pieces, each fragment floats, and if this floating be proved not to be owing to putrefaction or artificial inflation, then the proof is strong that the infant enjoyed perfect respiration. If only the right lung, or its pieces float, the respiration has been less perfect. If some pieces of either lung only float, while the greater number sink, it proves respiration to have been still less complete. On the other hand, if the entire lungs and every section of them sink in water, the inference is, that the child never respired.

II. *Proofs of the child having respired, drawn from circulating organs.*

There are two things in connection with this which require investigation, viz., *the character of the blood itself*, and *the condition of the heart and vessels circulating the blood*.

(a.) *Of the character of the blood itself.* By some eminent authorities it is asserted that there is no difference in appearance between the arterial and venous blood of the foetus. Bichat investigated this point particularly, and he states that he made numerous dissections of young Guinea-pigs while yet in the womb of their mother, and he uniformly found the blood of the arteries and veins presenting the same appearance, resembling the venous blood of the adult. Not the slightest difference was observed between the blood taken from the aorta and that from the vena cava, nor between that drawn from the carotid artery and the jugular vein. He made the same observations in three experiments of a similar nature upon the foetuses of dogs. He also frequently dissected human foetuses who died in the womb, and found the same uniformity in the arterial and venous blood. From these facts, he concludes that no difference exists between the arterial and venous blood of the foetus, at least in external appearance. Velpeau and Autenreith, as the result of their experiments and observations, confirm this statement. By other observers this is positively contradicted, and it is asserted that the difference between the blood of the arteries and veins is very obvious. By Dr. Jeffrey the following experiment was made: He took part of the umbilical cord and dissected away the gelatinous part of it until he had laid bare the vessels, when, on puncturing them, he found there was a difference between the blood in the veins and the arteries.* A simpler mode of performing this experiment, suggested by Mr. Carr, of Sheffield, is the following: As soon as the child is born, and the cord divided, take the placental portion of it,

* Physiology of the Foetus, Liver, and Spleen, by George C. Holland, M.D., p. 154.

around the end of which a ligature has been previously applied, and cut it two or three inches from the ligature with a sharp scalpel, so as to make an even surface. If the portion of cord be now pressed from below upward, the blood flowing from the vein and that from the arteries will be found very different. "Sometimes a large drop of florid blood is observed to stand directly over the umbilical vein, and another, dark colored, over the arteries, without their being in the least mingled with each other, and in this case the difference between the two is so striking that no one can fail to observe it."* In relation to this experiment, it is to be remarked, that to render it of any force in controverting the observations of Bichat, it ought to be made upon the *still-born* child, in whom respiration has never taken place. Performed upon the child which has been born alive and breathed, the difference between the arterial and venous blood is just what might have been expected.

Chemical composition of fœtal blood. [The blood of the foetus differs from that of the adult chiefly in containing more solid residue, corpuscles, and iron. The analysis of Denis gives the following differences between the venous blood of the mother and that issuing from the artery of the cord:—

	Blood of mother.	Of the cord.
Water.....	781.0	701.5
Solid residue.....	219.0	298.5
Fibrin.....	2.4	2.2
Corpuscles.....	139.9	220.0
Peroxide of iron.....	0.8	2.0
Fat, salts, etc.....	25.9	22.3

These points of difference, though interesting, are of too delicate a nature to be rendered available in so grave a question as that of infanticide.—C. R. G.]

2. *The condition of the heart and blood-vessels.* There are a number of striking and interesting peculiarities in the organs circulating the blood in the foetus, which are modified or entirely lost after the child is born and respiration is established. These peculiarities, therefore, require to be specially noticed.

* Physiology of the Foetus, etc., by George C. Holland, M.D., p. 154.

They are the *foramen ovale*, the *ductus arteriosus*, the *ductus venosus*, the *umbilical vessels*, and the *cord*.

(a.) The *foramen ovale*. This is an opening situated in the septum which divides the right auricle from the left, and through it part of the blood is conveyed directly from the right to the left auricle. It is nearly equal in size to the mouth of the inferior cava, and is supplied with a thin transparent falciform valve, situated on the side of the left auricle. In this way the valve permits the flow of blood into the left auricle, but prevents its return into the right auricle. When the valve is closed, there is generally a small aperture still left open, where the valve falls slack, and is ready to open.

After birth, the foramen becomes obliterated by the closure and adhesion of the valve, and leaves behind it, in the adult, nothing but an oval depression in the septum between the auricles. This depression is called the *fossa ovalis*, and corresponds to the space occupied in the foetus by the foramen ovale. In the foetal state, and anterior to respiration, this foramen is usually open, and it becomes closed in consequence of the blood taking a new route through the lungs when respiration commences. If, therefore, in examining any case, the foramen ovale be found closed, it was supposed to be decisive evidence of the child's having been born alive. [The researches of Dr. Norman Cheever (see Lond. Med. Gazette, vol. xxxviii. p. 967) show conclusively that the closure of the foramen ovale does not prove that the child was born alive; in several cases he found it closed in still-born children. There were other abnormalities about the heart. A similar case is given by Capuron. (Med. Leg. des Acc., p. 337.)—C. R. G.] It is to be recollected, however, that this closing and obliteration of the foramen ovale is a gradual process, taking sometimes from two to three weeks before it is completed. Hence it is obvious, that however strong a proof its closure may be of previous life, yet its being open is no evidence to the contrary. To render the phenomena connected with the foramen ovale available in these cases, it was suggested, originally I believe by Professor Bernt, of Vienna, that although the complete closure of the foramen ovale does not take place until some days after

birth, yet that during all this time it undergoes certain changes, which distinctly mark the period which has elapsed after the birth of the child. That the foramen ovale does undergo a series of changes during the process of obliteration, was remarked so early as 1750 by the English anatomist, Ridley, and has since then been confirmed by the observations of anatomists and physiologists. These changes consist mainly in the position of the aperture of the foramen. In the foetus, anterior to respiration, the aperture of the foramen ovale is always found at the lowest part of the valve; as soon as respiration has commenced, it is gradually turned toward the right; after some weeks it is elevated still higher; and finally, after revolving as it were around the right edge of the valve, it is found at the *upper*, instead of the *lower* side of it. From the very nature of these changes, no one would be competent to decide upon them, unless he had had the good fortune, which falls to the lot of very few, of making a great number of dissections and observations upon the foetus. In the hands of the generality of physicians, it might lead to numerous and unavoidable errors. In addition to all this, the very observations made by Bernt himself prove that the changes in the foramen ovale do not take place so uniformly and certainly as to render it safe to draw any positive conclusion from them. On these various accounts, I must confess that I do not attach much importance to this test.

(b.) *The ductus arteriosus.* This is a vessel which passes directly from the pulmonary artery, and enters the aorta just below its arch. It is of considerable size, being somewhat larger than the aorta in the foetus. It conveys a large portion of the blood sent into the trunk of the pulmonary artery directly into the aorta.

In the foetus the ductus arteriosus will be found open and filled with blood. After birth, it becomes gradually obliterated, and the duct itself becomes eventually changed into a ligament.* If, therefore, in any case, this duct is found per-

* "In the adult, it is so thoroughly obliterated that by the most careful dissection we can show no other vestige of it than a cord-like adhesion of

manently closed, it is a proof that the child has been born alive, and enjoyed life for a longer or shorter period. [The researches of Cheever, before alluded to, prove that this is too strongly stated. The duct has been found closed in the still-born child, very rarely, however, and in almost all the cases connected with malformation of the heart.—C. R. G.] As its closure does not take place sometimes till two or three weeks after birth, its being found open is no proof that the child was born dead. By Professor Bernt it is urged that, as in the foramen ovale, a succession of changes takes place which may sufficiently mark the various intervals which have elapsed between them and the birth of the child; and upon these he has founded another test in cases of infanticide, to which he attaches great value. These changes are the following:—

State of the ductus arteriosus in the mature fœtus before respiration. Its shape is cylindrical, its length is nearly half an inch, its diameter is equal to that of the main trunk of the pulmonary artery, and more than double the size of the branches of that artery, each of which is equal to a crow-quill.

In a child which has respired a few moments. The duct loses its cylindrical shape, the part toward the aorta becomes contracted, and the whole duct assumes the shape of a truncated cone, the base of which is toward the pulmonary artery, and the apex toward the aorta; sometimes the contrary is observed.

In a child which has lived for several hours or for a day. It now recovers its cylindrical shape, but is greatly diminished both in length and diameter. It is now not larger than a goose-quill, much less than the main trunk of the pulmonary artery, and not more than equal to each of its branches.

In a child which has lived for some days or a week. The duct will now be found wrinkled and shortened to the length

the aorta and pulmonic artery." (Bell's Anatomy, vol. i. p. 465; American edition.)

According to Meckel, the obliteration of the ductus arteriosus leaves behind it "a round solid cord, a line thick and about four lines long." (Meckel's Anatomy, vol. ii. p. 374, translated by A. S. Doane, M.D.)

of only a few lines, while its diameter is not larger than that of a crow-quill; at the same time, the diameter of the branches of the pulmonary artery will be found increased to that of a goose-quill. Finally, the perfect closure of the duct does not take place until after the lapse of several weeks or months.

In relation to the foregoing changes, as stated by Prof. Bernt, Orfila has reported some observations, and of the eight cases which he details, only four were found to confirm them.

In one case, of a mature still-born foetus, the ductus arteriosus was found only *half the size of the trunk of the pulmonary artery*; it was cylindrical, half an inch long, and about as large as one of the branches of the pulmonary artery.

In a second case, of a male foetus eight months old, born dead, the ductus arteriosus was cylindrical, not quite *half the size of the trunk of the pulmonary artery*; larger than the right, and much larger than the left branch of that artery.

In a third case, of a mature female infant which had lived five hours, the ductus arteriosus, so far from being cylindrical, was found dilated at its middle part, and its extremity toward the aorta much larger than that toward the heart; it was *eight lines in length*, and considerably diminished in size. The trunk of the pulmonary artery *was sensibly larger than the left branch of that artery*, but scarcely equaled in size the right branch of this vessel.

In the fourth case, a female infant of full age, having lived nineteen days, the ductus arteriosus was only three lines in length, cylindrical, its size three times less than that of the trunk of the pulmonary artery, *a little less in size than the right branch, but much larger than the left branch of that artery*.*

In four other cases of infants at full age, two of whom were born dead, it was found that the changes in the ductus arteriosus corresponded with the statements of Professor Bernt.

Very recently, Mr. Jennings, of England, has reported several cases which tend to support the correctness of the observations of Bernt. In three still-born children, the ductus

* Leçons de Médecine Légale, par M. Orfila, vol. i. pp. 388, 389; second edition.

arteriosus was found cylindrical, nearly as large as the main trunk of the pulmonary artery, and larger than either of the branches. In a fourth child, which had breathed freely, and died one hour after birth, the ductus arteriosus was conical, with the apex toward the aorta, and smaller than the pulmonary branches.

In a fifth child, which was feeble, and died soon after birth, the duct was conical, with the apex toward the aorta, and smaller than the pulmonary branches. The sixth child was born with the breach presenting and in a state of asphyxia. The lungs were inflated, and it cried, but died shortly after. Here the duct was found conical, and considerably smaller than the main pulmonary trunk.*

The result of my observations goes strongly to support the accuracy of these views. In six still-born children, I found the ductus arteriosus cylindrical in shape, and about the size of the main trunk of the pulmonary artery, and considerably larger than either of its branches—in some cases, double the size. In a seventh still-born child, I found it nearly of the size of the pulmonary artery, but not much larger than its branches. In a child which had lived four days, the ductus arteriosus was cylindrical, three lines in length, and about the size of a crow-quill, and not more than half the size of the pulmonary artery. In a child which had lived three days, the ductus arteriosus was two and a half lines long and cylindrical; about one-third the size of the pulmonary artery, and somewhat smaller than the branches of that artery. In a child which lived forty-six hours, the ductus arteriosus was one-fourth of an inch long, cylindrical in shape, less than half the size of the pulmonary artery, and about equal to one of its branches.

From the foregoing, therefore, I think we may safely conclude, that although the changes in the ductus arteriosus consequent upon respiration are by no means *invariably* such as are reported by Prof. Bernt, yet they furnish corroborative proof of some value. It is, however, evident that they should

* Transactions of the Provincial Med. and Surg. Association, vol. ii. p. 450.

never be taken except in connection with the other signs indicative of respiration.

(c.) *The ductus venosus.* This is a vessel lodged in the posterior part of the longitudinal fissure of the liver. It comes off directly from the umbilical vein, and opens with the venæ hepaticæ into the vena cava ascendens. It is large enough to admit a common-sized probe, which can easily be introduced into it through the umbilical vein. Through this vessel a portion of the blood passing through the umbilical vein goes directly to the cava and then to the heart.

In the fœtus, anterior to respiration, the ductus venosus is very generally open. After respiration is established, it gradually contracts, becomes impervious, and is finally converted into a ligament. The period at which it obliterates varies very much in different cases. In twenty infants who had lived three days, it was found obliterated.* Generally speaking, this vessel is obliterated before the ductus arteriosus or the foramen ovale. The only inferences that can be drawn from the ductus venosus are these: if it be obliterated, it is [presumptive] proof that the child has lived and respired; on the contrary, as it remains open a day or two at least after birth, its being found open is no proof that the child was born dead.

(d.) *The umbilical vessels.* These consist of two arteries and a vein. The former (*the umbilical arteries*) are nothing more than continuations of the iliacs. They mount up along the sides of the urinary bladder, and go directly to the umbilicus, through which they pass, forming, with the vein, the umbilical cord. These vessels carry the blood of the fœtus to the placenta. The latter (*the umbilical vein*) brings the blood from the placenta to the fœtus. It enters at the umbilicus, and goes upward and backward to the great fissure of the liver. After birth, these vessels become gradually obliterated, and converted into ligaments. The period at which this obliteration takes place varies in different subjects. It takes place, however, sooner than that of any other of the

* Leçons de Médecine Légale, par M. Orfila, vol. i. p. 384; second edition.

foetal openings. In twenty cases of infants who died on the third day, they were all obliterated. The only inference, therefore, that can be drawn from finding them closed, is that the child has [probably] been alive; at the same time, their being open is no proof that the child was born dead.

With regard to the whole of the changes which take place in the circulation after birth, M. Billard has made a number of exceedingly interesting and important observations, which deserve to be recorded.

Children one day old. In eighteen children of this age, fourteen had the *foramen ovale* completely open; in two, its obliteration had commenced; and in the remaining two, it was completely closed, and passed no blood. In the same infants, thirteen had the *ductus arteriosus* open and full of blood; in four, its obliteration had commenced; and in one it was complete. This last was one of the two that had the *foramen ovale* completely closed. The *umbilical arteries* were open quite to their insertion in the *iliac arteries*; their calibre, however, was diminished by a remarkable thickening of the coats. In all these children, the *umbilical vein and the ductus venosus* were open, and the latter vessel gorged with blood.*

Children two days old. In twenty-two infants of this age, fifteen had the *foramen ovale* quite open; in three, it was almost obliterated; and in the remaining four entirely so. In thirteen of the same children the *ductus arteriosus* was open; in six, the obliteration was commenced; and in three it was complete. In all of the twenty-two, the *umbilical arteries* were obliterated to a greater or less extent. The *umbilical vein and ductus venosus*, though empty and flat, would yet admit a probe of considerable size.

Children three days old. In twenty-two infants of this age, fourteen had the *foramen ovale* still open; in five, the obliteration had commenced; and in the remaining three it

* *Traité des Maladies des Enfants, etc.*, par C. M. Billard, pp. 576-80. Also, *Leçons de Médecine Légale*, par M. Orfila, vol. i. p. 387; second edition.

was complete. In fifteen, the *ductus arteriosus* was still free; in five, the obliteration had commenced; and in only two was it complete. These two were of the three which had the foramen ovale closed. In all the twenty-two, the *umbilical vessels* and *ductus venosus* were empty, and even obliterated.

Children four days old. In twenty-seven infants of this age, seventeen had the *foramen ovale* still open, and in six of these this opening was very large and distended, with a great quantity of blood; in eight, the obliteration was commenced, and in two complete. In seventeen, the *ductus arteriosus* was still open; in seven, the obliteration had commenced, and indeed consisted only of a very narrow passage; in the three remaining, the obliteration was complete. The *umbilical arteries* were in almost all obliterated near the umbilicus, but were yet capable of being dilated near their insertion into the iliacs. The *umbilical vein* and the *ductus venosus* were completely empty, and very much contracted.

Children five days old. In twenty-nine infants of this age, thirteen had the *foramen ovale* yet open, although the opening did not exist in the same degree in all; (in four of them it was large, and in the nine others moderate;) in six, the obliteration was complete; and in the remaining ten, almost complete. In fifteen of these twenty-nine the *ductus arteriosus* was found open; in ten of them very freely so, and in the other five the obliteration was very much advanced. In seven, this canal was completely obliterated; while in the remaining seven it was nearly so. In all, the *umbilical vessels* were completely obliterated.

Children eight days old. In twenty children of this age the *foramen ovale* was completely closed in eleven; incompletely so in four, and open in five. In three, the *ductus arteriosus* was not obliterated; in six, it was almost entirely obliterated; and in eleven, the obliteration was complete. In fifteen, the *umbilical vessels* were obliterated; the remaining five were not examined.

Children at more advanced ages. In most of these the foetal openings are obliterated; nevertheless, the *foramen ovale* and the *ductus arteriosus* may be found open as late as twelve

or fifteen days, and even three weeks, without any particular accident happening during its life to the child.*

(e.) *The umbilical cord.* This is the last peculiarity of the foetal circulation which requires notice. After the birth of the child, and the division of it from the placenta, it is well known that in a few days the cord separates from the child, and drops off. If, therefore, in examining a case, it be found that the cord has separated in the usual way, it is a proof that the child has lived. As, however, the separation of the cord takes some days, it is obvious that its presence is no proof that the child was not born alive. As in the case of the foramen ovale and the ductus arteriosus, it has been supposed, however, that the successive changes which the cord undergoes from birth until its final separation, afford some indication, not merely of the child's having been born alive, but also of the length of time during which it had lived. M. Billard was the first by whom these changes were properly investigated. These I shall briefly notice. By the cord here, we mean that portion of it which is between the umbilicus of the child and the ligature. In the new-born infant it is firm, round, and of bluish color. If the child lives, the first change which it undergoes is that of *withering*; the second is that of *desiccation or drying*; the third is the *separation*; the last, the *cicatrization* of the umbilicus.

Withering of the cord. This is the incipient stage of desiccation, and is indicated by the cord becoming soft, flabby, and very flexible. It takes place at various periods, from five hours to three days after birth. Of sixteen infants who had the cord withered, one was five hours old, six were a day old, four were two days old, and four were three days old.

Desiccation or drying of the cord. The cord now becomes dry and flattened, and of a brownish-red color. As the process advances, it becomes still more flattened, and

* So many cases of open foramen ovale in the adult have been recorded of late years, that it must now be considered as not a very rare anomaly. See Burns on the Heart, p. 17; Corvisart, p. 209. American edition; New York Med. and Phys. Journal, vol. ii. p. 444, vol. vi. p. 250; American Journal Med. Sciences, vol. xv. p. 223.

semi-transparent. The umbilical vessels now become contracted, and in some cases obliterated. This process usually commences on the first or second day after birth, and is completed on the third, fourth, or fifth day. The average period is about the third day. Of twenty-five infants, in whom the desiccation was complete, Billard found one was one day old, one a day and a half old, five were two days old, nine three days old, four four days old, five five days old.

By M. Billard this desiccation is considered as a vital process, and his reasons are, in *the first place*, that the portion of cord beyond the ligature, or that which is attached to the placenta, does not undergo this process of desiccation, but decomposes and putrefies like any other dead matter, while the part of the cord between the ligature and the abdomen alone undergoes desiccation, a process entirely different from putrefaction. And in *the second place*, that the cord ceases to desiccate as soon as life ceases; that it does not desiccate at all in the foetus which is born dead; that on the dead subject the cord undergoes a real putrefaction, which is altogether different from this desiccation.*

* *Traité des Maladies des Enfants*, etc., par C. M. Billard, p. 16; New York Medical and Physical Journal, vol. vi. pp. 303, 304. Billard states that in foetal subjects brought in for the purposes of dissection, he always observed that they may be kept for several days without any drying of the cord. The cord even remains sufficiently soft, and its vessels sufficiently open to permit of their being injected. During life, on the other hand, the cord desiccates and the vessels become obliterated from the first, second, or third day. For the purpose of testing these facts, he preserved a number of dead bodies of children for several days. The cord did not desiccate, but remained soft and flexible, even to the fourth and fifth day, and then it fell into a state of putridity. He also succeeded in injecting, by the umbilical cord, at the end of four days, the body of a still-born child. The cord here was not the least desiccated, and was only very soft. (Billard, p. 21.)

When the umbilical cord is left to undergo putrefaction, it becomes greenish-white; after that it puckers at its extremity; the cuticle of the cord is easily separated, although the cord itself does not separate from the abdomen, as it does during life. The cord can be torn in different places, and if it has been in water for some time, it is soft and very fragile. Billard has never seen the cord of a child, born dead, dried up before the fifth or sixth day, and in this case it preserves its circular form and even its suppleness for a considerable time. According to the observations of M. Billard, putrefac-

Separation or dropping off of the cord. The period at which this takes place varies very considerably. In sixteen children examined by Billard, in whom the cord had separated, 3 were two days old, 3 three days, 6 four, 3 five, 1 six, and 1 seven.* From the fourth to the fifth day after birth, then, would appear to be the ordinary period at which the cord falls off, although it sometimes happens sooner and sometimes later. Generally, then, the cord *withers* during the first day, at the end of which *desiccation* commences; desiccation is complete on the third day, and between the fourth and fifth day the cord *drops off*. All this, of course, is liable to numerous variations and exceptions.

Before dismissing the subject of the umbilical cord, there is another phenomenon which requires to be noticed. Anterior to the dropping off of the cord, there is observed a *red or inflammatory circle around its attachment to the umbilicus*, and by many this has been supposed to be an evidence of vital action, and of course that the child must have been born alive. This sign is by no means invariably present. Indeed, according to the observations of Billard, it would seem to be more commonly absent. Out of eighty-six children, he found only twenty-six who exhibited evident traces of this inflammatory circle. Its absence, therefore, is by no means to be looked upon as an evidence that the child was not born alive.

Cicatrization of the umbilicus. This is the last change which these parts undergo, and the period at which it takes place is from the tenth to the twelfth day after birth.

III. *Proofs of the child having respired, deduced from the abdominal organs.*

The only organs from which any inferences here can be drawn are the *liver*, the *intestines*, and the *bladder*.

tion of the cord never occurs until this process has commenced in other parts of the body. The cord, therefore, is never affected in this way until the abdominal parietes have turned green and the different organs are in a state of decided decomposition. (Billard, pp. 23, 24.)

* Billard, p. 26.

1. *The liver.* It is a fact well established, that in the mature foetus the liver is much larger than it is after respiration has taken place.* From the changes which occur in the circulating system immediately upon the commencement of respiration, the cause of this must be obvious. In the foetal state, the lungs have but a small quantity of blood circulating through them. As soon, however, as respiration is established, the pulmonary organs become charged with blood. Hence, as already stated, their weight is greatly increased. Now there is every reason to believe that this new determination of blood to the lungs is followed by a loss of blood on the part of the liver.

In addition to this, the supply of blood to the liver from the umbilical vein is now cut off. From these two causes the quantity of blood going to the liver must be greatly lessened, and hence this organ gradually diminishes in size after birth. From these facts it appears to me that the relative weight of the liver may serve as a useful test to establish the fact of respiration having taken place, and more especially to correct any fallacies that might occur from the test of Ploucquet. To exemplify—if by the test of Ploucquet it should be found that the lungs had acquired the weight of a child which had respired, while the liver had lost none of its foetal weight, then there might be ground for suspecting that the increase of weight in the lungs was owing to some other cause than respiration. If, on the other hand, the liver had diminished in weight, while the lungs had increased, this concurrence of the two tests would certainly add greatly to the force and conclusiveness of the testimony.

By no writer on forensic medicine, that has ever fallen under my examination, has this test been suggested, and I throw it out at present, in the hope that it may attract the attention of inquirers on this interesting subject.†

* According to Meckel, the absolute weight and size of the liver diminishes until the end of the first year. In five new-born children, he found the liver one-quarter heavier than in five other children, from eight to ten months. (Doane's Meckel, vol. iii. p. 309.)

† This was originally suggested twenty-five years ago. Since then, I find this subject has attracted the attention of foreign writers. Professor Bernt,

2. *The intestines.* In the foetal state these organs contain a dark pitchy matter, called the meconium, which is evacuated shortly after birth, when the child is born alive. The period at which the meconium is discharged is by no means uniform. In some cases it takes place immediately after birth, while in others it is delayed for several hours. If, therefore, the meconium be found evacuated, it offers a presumption in favor of the child having been born alive, while at the same time it is evident that the child may be born alive, and yet die before it is discharged.

[*Contents of the stomach.* Evidence of live birth has been obtained in several cases from analysis of the contents of the stomach. Starch and sugar have each been detected. Dr. Geoghegan and Dr. Francis detected starch by its appropriate test, iodine. Dr. Taylor detected sugar by Trommer's test. Neither of these substances is ever found in the foetal stomach.—*Taylor*, p. 323.]

3. *The bladder.* Anterior to birth it has been ascertained that the bladder contains a considerable quantity of urine. At variable periods after birth this is discharged. If, therefore, on examination, it should be found empty, the presumption is in favor of the child having been born alive, and of having lived sufficiently long to pass its urine by its own efforts. It is obvious, however, that this is liable to many exceptions, and should not, therefore, be infallibly relied on.

General inferences deduced from the preceding examination of the respiratory organs, the circulation, and the abdominal organs.

I. The conclusion may be drawn that *the child has respired perfectly*, if the thorax be well arched; if the volume of the lungs be large, filling up the cavity of the chest; if they cover the diaphragm, and nearly the whole of the pericardium; if

of Vienna, has more especially noticed it; and in his *Centuria Experimentum*, has in all cases reported the weight of the liver. It does not appear from these reports, however, that any general and satisfactory proportion between the weight of the body and that of the liver, before and after birth, can be established. The researches of Orfila led him to a like conclusion.

they are soft and spongy; if their color be bright-red or scarlet; if on pressure, or being cut into, they crepitate; if they weigh one thousand grains or upwards; if their weight, compared with the weight of the body, be as one to forty; if they float in water with the heart attached to them, and when cut into pieces each fragment floats, and if this floating be proved not to be owing to putrefaction or artificial inflation; and finally, if the meconium be evacuated, if the ductus arteriosus be conical in its shape, or greatly diminished in size.

II. It may be inferred that *the child has only respired imperfectly*, if the lungs only partially cover the diaphragm and the sides of the pericardium; if they present here and there streaks of scarlet intermixed with brownish-red, and this especially in the right lung; if the scarlet portions crepitate, and the brownish-red are dense; if portions only of the lungs float in water, and if this be not owing to putrefaction or artificial inflation; and finally, if the ductus arteriosus has assumed the conical shape. It is scarcely necessary to suggest that where the signs give evidence only of imperfect respiration, the greatest caution should be exercised in making up an opinion. Where the signs are so indistinct as to leave the question doubtful, the medical witness should not hesitate to say so.

III. If, in addition to the signs of respiration, whether perfect or imperfect, as just mentioned, (in I. and II.,) the umbilical cord be found desiccated, the inference may be drawn that *respiration has been continued at least for several hours, and generally from one to two days.*

IV. If the ductus arteriosus, the foramen ovale, and the ductus venosus be obliterated, and if the umbilical cord be separated, the conclusion is certain, not merely that the child was born alive, but that it lived for a time sufficient for these vital changes to take place.

V. It may be inferred that *the child has not respired*, if the thorax be flat; if the lungs occupy only the superior and posterior parts of the chest; if they are small in volume, leaving uncovered the diaphragm and the sides of the pericardium; if the diaphragm be much arched; if the texture of the lungs

be dense; if their color be dark-brown, resembling that of the liver of the adult; if on pressure, or being cut into, they do not crepitate; if their weight be under six hundred grains; if their weight, compared with that of the body, be not more than one to forty-seven; if the entire lungs, as well as every fragment, when cut into pieces, sink rapidly in water, and if this sinking be not owing to engorgement or disease; and finally, if the ductus arteriosus be cylindrical, and nearly of the size of the trunk of the pulmonary artery, and if the cord be round and firm.

I have now gone through the consideration of the various proofs of a child having respired, and it is from these that we infer that a child was born alive. To all this, however, a capital objection remains to be considered. *A child, it is urged, may respire during the birth, and yet may die before it is fully born.* In this case the proofs of respiration may be present, and yet the child may not have been born alive. This is undoubtedly a most formidable objection, as its direct tendency is to render all the evidences of *respiration* invalid as proofs of *live birth*. It is an objection, too, which may be started in every trial for infanticide. It requires, therefore, to be fully investigated.* The objection may present itself in two different shapes, each of which I shall examine.

1. It may be objected, that "a child will very commonly breathe as soon as its mouth is born, or protruded from its mother, and in that case may lose its life before it is born, especially when there happens to be a considerable interval of time between what we may call the birth of the child's head and the protrusion of the body."†

This objection did not originate with Dr. Hunter. It is noticed by Morgagni, and I find it discussed by the German writers early in the last century. It must be admitted, how-

* In previous editions of this work, I have considered this objection under the head of the Hydrostatic test. As it is, however, as much an objection against almost *all* the signs of respiration as it is against the Hydrostatic test, and as, indeed, it goes to nullify *respiration* itself, as a proof of live birth, it is more properly to be considered as a distinct question.

† Dr. William Hunter, in the Medical Obs. and Inq. of London, vol. vi. p. 287.

ever, that the high authority of Hunter's name has given to it an importance which it otherwise would never have possessed, and it is on this account more especially deserving of examination. It involves two points, each of which is worthy of distinct elucidation. Is it possible that a child can breathe when nothing more than its head is delivered? and if so, is it probable, that after having respired in this situation, it will die before the delivery of the rest of the body?

Both these must be answered affirmatively to render the objection of any force. The mere fact of a child's breathing in this situation amounts to nothing, unless it be followed by its death. It must both breathe and die before it is born, to make good the objection.

Although it be denied by some very respectable authors, that a child can perform the act of respiration when merely its head is born, yet the fact rests upon evidence too substantial to be contradicted; and it is equally true, that it may die in this position; indeed, three cases of death under these precise circumstances have been recorded—one by Dr. D. Hosack and two by Dr. Campbell—yet all must admit that this is, at the same time, a very rare and a very improbable event, and that, in case of its happening, the cause of death will generally be evident on a mere examination of the body of the infant. This would certainly be true of the more common causes of tedious delivery, as very wide shoulders, tumors of the body, etc.

2. There is another shape in which this objection may present itself—the child may respire while yet in the womb, and before it is born may die.

With regard to the occurrence of respiration in a child while yet in the womb, and before the rupture of the membranes, the thing is physically impossible, and there is no evidence which can satisfy me that it has ever taken place.* This objection

* Nevertheless, cases of this kind have been gravely published to the world. In the twenty-sixth volume of the Transactions of the Royal Society of London, Mr. Derham gives an account of a child who cried almost daily for five weeks before delivery! Another case is detailed in the seventy-third number of the Edinburgh Medical and Surgical Journal, by Dr. Zitterland,

requires no further consideration. When, however, the membranes are ruptured, the mouth of the uterus dilated, and the head of the child descends and the mouth readily communicates with the external air, imperfect respiration may take place, and in some cases has actually done so. The following, recorded on respectable authority, will illustrate this. The first is related by Prof. Holms, of Montreal, Canada: "On the 29th of October, 1828, I was called to a lady in labor of her sixth child. The face presented, but the pelvis being capacious, and her labors generally easy, no attempt was made to change the position. The head continuing to descend, the mouth lay on the pubis, and the examining finger could easily be introduced into it. The occiput did not yet occupy fully the cavity of the sacrum. At this time I heard sounds like the cries of a child whose mouth was muffled by some covering, but not very distinct, and not being at all prepared for them, I thought when they ceased that they must have been produced by flatus in the intestines of the mother. In the course of a short time, however, the cries were repeated, and with the greatest distinctness, so as not to admit of a doubt that they proceeded from the child. The mother, much alarmed, inquired the cause

of Strasburg, in Prussia. Speaking of these cases, Velpeau quotes La Fontaine: "Since learned and credible men have heard it, I will believe it; but I should not believe it, if I had heard it myself."

To those who feel a curiosity in investigating this subject, the following references are furnished:—

Johnson's *Medico-Chirurgical Review*, vol. iii. p. 221; vol. vi. p. 532; vol. ix. p. 524. *Edinburgh Medical and Physical Journal*, vol. xviii. p. 550; vol. xxx. p. 224; vol. xxxiii. p. 215.

Philadelphia Journal of Medical and Physical Sciences, new series, vol. iv. p. 407. *American Journal of Medical Sciences*, vol. iv. p. 248; vol. viii. p. 248; vol. xi. p. 546; vol. xiv. p. 463.

Quarterly Journal of British and Foreign Medicine and Surgery, vol. iv. p. 221; *New York Medical and Physical Journal*, vol. i. p. 372.

Baltimore Medical and Surgical Journal, edited by Professor E. Geddings, M.D., vol. ii. p. 445.

Observations on Obstetric Auscultation, etc., by Every Kennedy, M.D., p. 319.

Intra-Uterine respiration, in its relations to Physiology and Medical Jurisprudence, by Prof. Gross, in the *Western Medical Gazette* for July, 1834.

of these noises, and required to be assured that they were not indicative of any danger. The pains being brisk, the head was soon expelled. The child was a female, and is still (August, 1829) alive and thriving. This case appears to me so curious, though easy of explanation, when the position of the mouth is considered, that I am induced to draw up this notice, not having met with anything similar on record, and as it is entirely different from the incredible stories we have of the fœtus emitting cries before the commencement of labor.”*

Another case, analogous to this, is still more recently related by Mr. Tomkins, an English surgeon, which I shall record in his own language: “I was, some time since, called to the wife of a blacksmith at Preston, who was in labor with her tenth child. I had attended her in several former confinements, and she had always had quick deliveries, as the pelvis was unusually capacious, and her pains were active. After I had been a few minutes in the room, I proposed and made an examination, and found the face presenting, and making its descent into the pelvis, the chin resting on the os pubis. A few strong pains succeeded, and I again examined, to ascertain if the face had made any advance. I found it had done so, and that it was pressing on the perinæum; but in making this examination, my finger passed freely into the mouth of the child, and it immediately gave a convulsive sob, and cried aloud, to the great terror of the mother and of the by-standers, when they found that it was still in the womb. I had great difficulty in calming the agitation produced by this event upon the woman, whose pains were suspended for nearly an hour; but I eventually succeeded, by explaining that the face was presenting, and that from the circumstances of my having passed my finger into the mouth, the air had gained admission, and enabled the child to breathe. This, with a little spirit and water, and a dose of the ergot of rye, succeeded in bringing on the uterine action, and after two pains, the child

* Edinburgh Medical and Surgical Journal, vol. xxxiii. p. 215.

was expelled alive and well, at least one hour after it had respired and cried in the womb.”*

Now, in reply to the difficulties created by these cases, the following considerations may be urged:—

In the first place, such cases must be exceedingly rare. Face presentations do not occur frequently. Out of 16,980 children born at the Hospital of Maternity, at Paris, only 59, or one in 300, were of this nature.† Even when such presentations do happen, the occurrence of respiration anterior to delivery can take place only under very peculiar circumstances. In the two cases detailed above, it will be observed that respiration occurred *only in consequence of the introduction of the finger of the accoucheur into the child's mouth.*

In the second place, even supposing respiration to take place, it must be very imperfect, unless the child continued to breathe after it was delivered, in which case the objection would of course fall to the ground.

In the last place, if full and complete respiration took place under these circumstances, (a case hardly supposable, however,) this fact would indicate, most clearly, that the passages of the mother were so capacious as to offer no impediment to a prompt and safe delivery; and, therefore, no question of a criminal nature could ever be raised.‡

* Lancet for July, 1834.

† Edinburgh Medical and Surgical Journal, vol. xix. p. 469.

‡ I cannot take leave of this point, without presenting the following view taken of it by one of the highest authorities on every question relating to Juridical Medicine—I mean the Edinburgh Medical and Surgical Journal:—

“*Uterine respiration can never come in our way on such trials, (for infanticide,) for it takes place only under circumstances which render manual aid necessary to complete the delivery. Vaginal respiration is also so far similarly circumstanced. Respiration in the passages, as hitherto observed, takes place only: 1, in delivery by the feet, when the whole body but the head is protruded; and 2, in natural delivery, either when the head is expelled and the body remains in the passages; or 3, when, before the expulsion of the head, and after the rupture of the membranes, the hand is introduced to accelerate tedious labor. The first case cannot occur in medico-legal practice, so far as regards infanticide and concealment of pregnancy. The second can hardly be a cause of fallacy, as the circumstance of the child being able to breathe shows that the constriction of the chest cannot be great; that the labor must therefore be speedily completed,*

From all that has been said, therefore, in relation to the foregoing objection, in whatever shape it may present itself, I think we may fairly infer:—

1. That respiration anterior to full birth is a rare occurrence.

2. That when it does take place, it must be under circumstances which give the child the best possible chance of being born alive.

3. That when a child dies in this situation, the respiration must necessarily be *imperfect*, and, therefore, it can create no difficulty in cases where the evidences of *perfect* respiration are present.

4. That when a child dies in this situation, the respiration must, as a matter of course, be of *short duration*, and, therefore, it can present no difficulty in cases where, from the appearance of the umbilical cord, it is evident that respiration has been continued for some time.

Thus narrowed down, the objection can only present itself, therefore, legitimately in cases where the respiration has been imperfect and of short duration. To the naked difficulty then presented in all such cases, I would make the following reply. Let it be recollected that the objection takes it for granted that respiration has already taken place. Now, if a child which had breathed should die before it is fully born, no charge of infanticide could ever be sustained, unless it were

and that the child's life is secured against the ordinary accidents which occur after this period of the labor. The third case renders it perhaps possible that, in tedious labor, air may reach the child in the passages, and be inhaled by other means besides the introduction of the hand; at the same time, such cases are by no means likely to occur in legal medicine, as the labor must be tedious, and consequently is not easily concealed. It appears, therefore, that the possibility of respiration, before the close of labor, forms an objection to the employment of the Hydrostatic test only so far as it may occur in tedious natural labor. Now, independently of respiration being exceedingly rare in such circumstances, the objection thus constituted is important only *by preventing the inspector from relying on the test in particular and known circumstances*, not by being apt to lead him into error; because the fact of the labor having been tedious may always be ascertained by moral evidence. This objection, therefore, is not of much consequence." (Edinburgh Medical and Surgical Journal, vol. xxvi. p. 372.)

proved at the same time that it died by violent means. No criminal charge could be based on the mere fact of respiration or even full birth having taken place. On the other hand, if it be proved that a child which had breathed has come to its end by violent means, the mere question as to whether this violence was committed *before* or *after* it was *fully born*, ought to make no difference in the character of the crime or the nature of the punishment. If, for example, a child's head was merely born, and it had breathed, and while in this state a knife was thrust into the fontanelle and its life thus taken away before it was fully born, it appears to me that neither common sense nor justice could set up, as at all exculpatory, the distinction between respiration and live birth.

[Though few persons will differ from Dr. Beck as to what the law ought to be in the case alluded to, it happens, unfortunately, that the law does make a wide difference. To support a charge of infanticide, the child must be out of the body of the mother. In the case supposed, therefore, the person who should thrust a knife into the fontanelle and take away life, could not be guilty of infanticide. For decisions on this point, see Archibold's Criminal Pleadings, 367; Rev. Simpson Cummin on Infanticide, p. 40; Guy Hosp. Rep., April, 1842.—C. R. G.]

I have dwelt the more fully upon this objection, because it presents a real difficulty in all trials for infanticide, and because some writers have, in my opinion, given it an undue importance by the strenuous manner in which they have insisted upon the distinction between respiration and live birth. Pushed to the full extent to which it is urged, it would, in every case, defeat the ends of justice and nullify every investigation in cases of alleged infanticide.

Quest. III. *If born alive, how long had the child lived?*

This inquiry is important, inasmuch as it enables us to ascertain how the appearance of the child compares with the signs of delivery in the reputed mother. For example, if it should be ascertained that the child had lived short of a day, and yet

the appearances on the female indicated that her delivery had taken place several days previously, it would show at once that she could not be the mother. In the determination of this question, no information of any importance can be obtained from the respiratory organs. These merely prove that the child breathed and lived, but *how long* it did so, they do not indicate. To establish this point, we have to depend mainly upon the proofs derived from the circulation, and this shows the importance of the preceding detailed investigation. The principal points to be examined are the following:—

- (a.) The state of the foramen ovale.
- (b.) That of the ductus arteriosus.
- (c.) That of the ductus venosus.
- (d.) That of the umbilical vessels.
- (e.) That of the umbilical cord.

Of all these, the most satisfactory information will be obtained from the state of the umbilical cord.

By recollecting the order in which these foetal passages and openings obliterate, there will be little difficulty in applying the facts to the solution of the present question.

The cord *withers*, as already stated, from five hours to three days after birth; *desiccation* commences from the first or second day after birth and is completed on the third, fourth, or fifth day. The average is about the third day. About the fifth day the cord drops off, and about the twelfth day, *cicatrization* takes place.

Quest. IV. *By what means did the child come to his death?*

Like the causes of abortion, these may be divided into two classes, viz.:—

- I. Criminal.
- II. Accidental.

As in every case of alleged infanticide, a question may be raised as to whether the death was owing to one or the other of these sets of causes, it becomes necessary to examine them separately and in detail.

I. *Criminal modes resorted to for the destruction of a newborn child.*

1. *The intentional neglect of tying the umbilical cord.*
The majority of medical practitioners, from the time of Hippocrates to the present day, concur in the necessity of tying the cord to obviate fatal hemorrhage. Such was the unanimity of opinion on this subject, that previous to the seventeenth century a doubt was not entertained with regard to it. According to Foderé,* J. Fantoni, Professor of Anatomy at Turin, was the first who suggested that this precaution was useless, and that the neglect of it was unattended with any danger to the life of the child. After his time the same opinion was adopted and defended by Michael Alberti, in 1731, and J. H. Schultzius,† in 1733, both professors in the University of Halle. In 1751, Kaltsmidt maintained the same doctrine at Jena.‡

[The only argument of any value, offered by them, is that from analogy with the lower animals. But this analogy does not hold, for, according to Prof. Brendel, (*Medicinæ forensis sive Legalis*, p. 9,) there is in the lower animals a peculiarity of structure tending to interrupt the flow of blood and lessen the chance of hemorrhage.—C. R. G.]

Besides, the manner in which the cord is separated in brutes facilitates contraction. It is never *cut* in them; it is *torn asunder*, and the disposition of a vessel to contract, under such circumstances, is greatly increased.§

* Foderé, vol. iv. p. 502.

† In a dissertation entitled "An Umbilici deligatio in nuper natis absolute necessaria sit." Halæ, 1733.

‡ Foderé, vol. iv. p. 509.

§ A very interesting note on this subject I find in a late edition of Meriman's Synopsis. It purports to be from the manuscript lectures of Dr. Wm. Hunter, and I copy it entire:—

"A ligature upon the navel string is absolutely necessary, otherwise the child will bleed to death; and when tied slovenly, or not properly, it will sometimes bleed to an alarming quantity. As we take such vast care to secure the navel string, you will naturally ask,—how brutes manage in this particular? I will give you an idea of their method of procedure from what I saw in a little bitch of Dr. Douglas. The pains coming on, the membranes

After all, the whole question rests upon a simple matter of fact, and this fact is, whether the omission of the ligature upon the cord has ever been attended with fatal hemorrhage. That it has been so, cannot be questioned.

[Dangerous hemorrhages from the cord occur under the observation of every one who practices midwifery at all extensively, and fatal cases are unhappily not very rare. The matter is no longer disputable.—C. R. G.]

Although there can be no question, therefore, that fatal hemorrhage may, and has occurred, from not tying the umbilical cord, yet it is equally certain that it does not necessarily do so. Observations, to a great extent, have been made, which prove that this precaution has been omitted without any serious consequences resulting. It is stated that M. Klein has reported one hundred and eighty-three cases of sudden labors, in many of which the cord was ruptured, and in twenty-one cases, close to the abdomen, yet there was no fatal umbilical hemorrhage.* In no case, therefore, is the mere absence of the ligature to be taken as conclusive evidence of death by hemorrhage.

Signs of death by hemorrhage from the cord. These are the following:—

(a.) Paleness of the surface, with a peculiar waxy appearance.

(b.) Paleness and loss of color in the muscles and internal viscera.

were protruded; in a pain or two more they burst, and the puppy followed. You cannot imagine with what eagerness the mother lapped up the water, and then, taking hold of the membranes with her teeth, drew out the secundines. These she devoured also, licking the little puppy as dry as she could. As soon as she had done, I took it up, and saw the navel string much bruised and lacerated. However, a second labor coming on, I watched more narrowly, and as soon as the little creature was come into the world, I cut the navel string, and the arteries immediately spouted out profusely; fearing the poor thing would die, I held it to its mother, who, drawing it several times through her mouth, bruised and lacerated it, after which it bled no more. This, I make no doubt, is the practice of other animals." (Dr. Wm. Hunter's Lectures, MS., 1752; Merriman's Synopsis, new edition, 1838, p. 21, note.)

* A Manual of Medical Jurisprudence, by M. Ryan, M.D., p. 414; Griffith's edition.

(c.) The absence of the usual quantity of blood in the heart and great vessels. By some it is stated that, in cases of hemorrhage, the heart and blood-vessels are completely empty. This, however, is not the case. Generally speaking, "if three ounces of blood can be collected, it may be presumed that the child has not died of hemorrhage."*

(d.) The absence of any wound or injury on the body of the child, to account for the loss of blood in any other way than by hemorrhage of the cord.

2. *Exposing a new-born child to the action of cold.* It is needless to dwell upon the necessity of those precautions which are generally taken after the birth of a child, in order to preserve a proper degree of temperature. They are founded equally upon experience and good sense. If, therefore, they have been neglected in any case, it is just to attribute it to *design*, unless circumstances render it probable that it proceeded from ignorance or want of the proper means. In either case, however, the physician may be called upon to decide whether the death is to be attributed to the action of the cold or to some other cause.

Signs of death by exposure to cold. These are given by Foderé in the following terms: "If the body of an infant be found stiff, discolored, shriveled, and naked, or with only a slight covering on it in a cold place, buried under stones, or under the earth, and from trials upon the lungs it is evident that it has respired; and if the great internal vessels are found gorged with blood, accompanied with an effusion of blood into the cavities, while the cutaneous vessels are contracted and almost empty, and when no other cause of death can be detected, one cannot hesitate to attribute it to the cold, and consider this abandonment and neglect of that care, the necessity of which is obvious to the dullest comprehension, as manifesting an intention to make away with the child."†

3. *Keeping from a child the nourishment necessary for supporting life.* It is not easy to say how long a new-born child may sustain life without food. It is evident, however,

* Cyclopedia of Practical Medicine, vol. ii. p. 694.

† Foderé, vol. iv. p. 505.

that food ought not to be withheld for any length of time. It is generally agreed that the neglect of it for twenty-four hours is not unattended with danger. The child is generally found exposed in some deserted place.

Signs of death from the want of food. As death in these cases does not take place until the child enjoyed life for a certain length of time, the first thing to be established is that the child has lived long enough to die from this cause. This may be done by inspecting the foramen ovale, the ductus arteriosus, the ductus venosus, but more especially the umbilical cord, according to the signs laid down in a previous part of this essay.

As children who die from want of food are generally exposed also, they sink under the combined operation of exposure and want of nourishment. They will be found, accordingly, to present the same appearances as in the last case; and besides these, there will be general emaciation of the body, and on dissection, the stomach and intestines will be found empty, the gall-bladder will be enlarged, and bile found generally effused in the stomach and intestines.*

4. *The infliction of wounds and injuries of various kinds.* This is the most common of the modes by which the life of a new-born child is willfully destroyed. Death, in these cases, may be produced in various ways, some of which I shall notice.

The introduction of sharp-pointed instruments into different parts of the body. Gui-Patin relates of a midwife who was executed at Paris for having murdered several children by plunging a needle into the head while presenting at the os externum.† Brendel also speaks of the same horrible practice. An instance of this kind is related by Belloc, where, upon examination, he found the instrument had penetrated to

* Besides keeping food from the new-born child, its life may be endangered or destroyed by giving it improper food. Dr. Campbell states that he has known several illegitimate children destroyed by giving them to be nursed by women whose milk was twelve or fourteen months old, the parties concerned being well aware that the child could not long subsist on such nourishment. (Midwifery, p. 151.)

† Mahon, vol. ii. p. 409.

the depth of two inches into the substance of the brain.* Needles, or other sharp instruments, are sometimes thrust into other parts of the child, such as the temples, the internal canthus of the eyes,† the spinal marrow, the neck, the thorax about the region of the heart,‡ and the abdomen. Sometimes a sharp instrument has been run down the throat, and up into the rectum. A case is recorded in a recent journal, in which the child was evidently destroyed in this way.§

Signs. In all cases where death has been produced in any of the preceding ways, dissection alone can reveal the cause. Where the instrument has been run into the brain, the head must be shaved, when a slight ecchymosis will be perceived around the puncture; after this, the examination must be pursued into the substance of the brain, to ascertain the nature and extent of the injury. Indeed, this is the only way in which injuries of this kind can be distinguished from tumors and extravasations on the scalp, which may occur during ordinary delivery, and be wholly unconnected with any malicious intent. In punctures of other parts of the body, the same course must be pursued. The wound must be probed, and the dissection prosecuted, to see how the internal organs are injured. [The only way by which we can be certain that none of these forms of secret murder shall escape our notice, is to make a *thorough* post-mortem examination of every suspicious case. Careful, *thorough* post-mortem examination of every case should be the invariable rule.—C. R. G.]

Wounds and bruises. This is another mode frequently re-

* Cours. de. Med. Leg., p. 93.

† Prælect. Academ., J. G. Brendel, vol. ii. p. 188.

‡ Foderé, vol. iv. p. 492.

§ Case of Elliot and Bease. (Edinburgh Medical and Surgical Journal, vol. xxxv. p. 457.) To show the effects of running a sharp instrument into the brain, the following interesting fact is related by Underwood: "A gentlewoman many years ago informed me that one of her children, after long and incessant crying, fell into strong convulsions, which her physician was at a loss to account for, nor was the cause discovered till after death, when, shocking to relate, on the cap being taken off, (which had not been changed on account of its illness,) a small pin was discovered sticking up to the head in the large fontanelle or mould." (On Diseases of Children, vol. iii. p. 406; American edition.)

sorted to for destroying the new-born infant. They may be found on any part of the body; the more common part, however, is the head. For the purpose of ascertaining the effects upon the head of a child falling from different heights, the following very instructive experiments were made at the Lying-in Hospital, and are detailed by Lecieux:—

“Fifteen infants who had died after their birth, but in whom there was no alteration in the bones of the cranium, were selected, and after having been raised up by the feet so that the head was at the height of about eighteen inches, were suffered to fall perpendicularly upon a hard floor; and, by anatomical examination, it was found that in twelve of them there was a longitudinal or angular fracture of one of the parietal bones, and sometimes of both.

“In the same manner fifteen infants were suffered to fall from a height of three feet, and on dissection there was found, in twelve cases, a fracture of the parietal bones, in some extending to the *os frontis*. When suffered to fall from a greater height, the membranous commissures of the cranium were relaxed, and even broken in some places; frequently the form of the brain was changed, and in some cases there was found under the meninges, or in the thick part of the meninges, an ecchymosis, an extravasation of blood produced by the rupture of vessels; and it was only in infants whose bones were very soft and flexible that no fracture was found.

“After having placed on a table the head of a child that had died soon after its birth, it was pressed in different places very strongly by the two thumbs on different parts of the surface; and in fifteen experiments of this kind, seven caused longitudinal fractures of greater or less extent in one or other of the parietals; in others, there was only perceived a depression or sinking of the bones. In the greatest number, the head was deformed or flattened, and the membranous commissures exhibited a sensible relaxation.

“Finally, the head, supported on a table, was struck strongly, and in different places, with a short, round stick. This experiment always caused a deformity or flattening of the head, multiplied fractures, with separation of splinters, relaxation,

in some places rupture of the sutures, and finally, extravasation of blood.”*

Signs. In cases of wounds, the points to be determined are, whether the wounds were inflicted before or after the death of the child, whether they are necessarily mortal, and whether they may not have been the result of accidental and unavoidable circumstances. With regard to wounds of the head, it is to be recollected that the heads of children are not unfrequently tumefied and ecchymosed from compression during a difficult and tedious labor. In some cases, too, a peculiar sanguineous tumor forms spontaneously on the head of the new-born child.† Arising in this way, these tumors are not attended with any danger to the child, and they are never complicated with fracture of the cranium. In some rare cases, even fissures of the cranium have occurred during delivery. This can happen, however, only under very extraordinary circumstances. In one case reported by Siebold, a female with a very narrow pelvis was delivered, by the efforts of nature alone, of a well-sized female child. It manifested no signs of life. On examination, the head was found swelled, and a great quantity of blood was extravasated upon the surface of the cranium. In the left parietal bone three fissures were discovered, and a fourth in the left frontal bone. In this case, these extensive injuries were manifestly owing to the long-continued pressure of the head of the child in a narrow pelvis.‡ Another case of a similar character is reported by Michaelis, of Kiel. A woman, with a well-formed pelvis, was delivered of her first child, after an ordinary natural labor. The child breathed both during birth and immediately after, but then died. The head was much disfigured, and on examination, the right parietal bone, which during birth had pressed against the promontory of the sacrum, was covered anteriorly and above with effused blood, and, on the removal of the peri-

* *Considerations sur l'Infanticide, par Lecieux.*

† See an excellent paper on this subject, by Prof. Geddings, the able and learned editor of the *North American Archives of Medical and Surgical Science*, vol. ii. p. 217.

‡ *North American Archives, etc., vol. ii. p. 434.*

osteum, was found fractured in five places. The whole of this bone was *uncommonly thin*. On opening the skull there was no extravasation beneath the fissures, but posteriorly the longitudinal sinus was ruptured, and there was an extensive coagulum on the cerebrum on both sides, under the dura mater, and on the tentorium cerebelli. In this case, the injuries were attributed to the natural weakness of the bone, and to the unfavorable position of the head during birth.* These cases, extraordinary as they are, show with what caution opinions should be formed in relation to injuries of the head in new-born children. [The number of such cases now reported is very considerable. Dr. Schworer, of Freiburg, has collected several. Three are reported in Caspar's *Wochenschrift* for 1851, Nos. 38 and 40. The frontal and parietal bones are the only ones which Weber has known to be broken in parturition. (*Brit. and For. Med. Rev.*, April, 1852; also July, 1852.)—C. R. G.]

In all examinations of contusions, two cautions ought to be observed, viz., to distinguish them from the discolored spots which appear on the surface of the body at the commencement of putrefaction, and not to confound accidents which may occur during dissection with those resulting from blows and other acts of violence.

Luxation and fracture of the neck. This is a mode of infanticide sometimes resorted to, and is usually perpetrated by forcibly twisting the head of the child, or pulling it backward.† In such cases the vertebræ are fractured, the ligaments ruptured, and death is caused by the injury inflicted upon the spinal marrow.

Signs. The mode of identifying this kind of death is by the local derangements about the part, by the position of the head, and, on dissection, by the fracture of the first or second vertebra, or both, and by the extravasation of blood among the cervical muscles. This last circumstance will show that the violence has been committed on a living subject.

* *American Journal of Med. Sciences*, vol. **xxi.** p. 246.

† Mahon, vol. **ii.** p. 409.

5. *Asphyxiating a new-born child, or putting a stop to its respiration.* This may be accomplished in various ways: by drowning, hanging, or strangulation, smothering under bed-clothes, suffocating, by thrusting various articles in the mouth and nostrils; finally, by exposure to noxious gases.

Drowning. If a child be found immersed in water, the questions which require to be determined are: *First*, was the child born alive? *Second*, supposing it to have been born alive, was it put into the water before or after its death? The first of these is to be determined by the means already indicated. With regard to the signs of drowning, they are the same in the infant that they are in the adult, and a careful examination is therefore to be made, with a view of ascertaining whether these are present or not.*

Hanging and strangulation. In hanging, the general cause of death is precisely the same as that in drowning, viz., suspension of the respiration. The signs, therefore, in these cases are the same, except so far as they are modified in the former by the application of the ligature and the absence of water. In cases of death by hanging, there will probably be a circular livid mark around the neck from the application of the ligature.†

Death by *strangulation* is produced by the same general cause as hanging, and the only difference between them will be the absence of the distinct circular mark round the neck in the former, and the presence of ecchymoses and discolorations about the neck and chest, produced by the application of fingers and nails to these parts.

In cases where death by hanging or strangulation is suspected, there is one source of fallacy which requires to be specially noticed. It happens sometimes, that in consequence of the umbilical cord being wound round the neck, the child dies during or immediately after birth. Whether, in cases of this kind, the same kind of mark is left on the neck of the child as in criminal strangulation, is a question concern-

* On the Signs of Drowning, see chapter xiv.

† On the Signs of Hanging, see chapter xiv.

ing which there is much difference of opinion. Klein states, as the result of extensive experience, that he has never met with an instance in which ecchymoses or any other marks have been produced by the cord. On the other hand, Taufflieb has recorded some cases in which these appearances were actually observed.* In all cases of supposed hanging or strangulation, this should be made the subject of special investigation.†

Smothering. When the child has been *smothered* under bedclothes, etc., the circumstances upon which to form a decision that willful murder has been committed, besides those which characterize strangulation generally, are, the place where the body is found, and the absence of any other probable cause to which its death can be attributed.

Introducing articles into the mouth, nostrils, or throat. When this is the case, dissection alone can detect the cause.

Causing a child to inhale air deprived of its oxygen. This

* Annales d'Hygiène publique, vol. xiv. p. 340.

† Dr. Freney, of Remenville, communicates the following: On the ninth of October, I was called to attend a female, aged forty-three, in labor. She was small, but well made, and the mother of five children. The pains were regular and strong, the head presented and was low down, and in a quarter of an hour the child was born. It was motionless, the flesh soft and the lips red. The umbilical cord passed twice round the neck, and then under the left thigh, in such a manner that with every motion in the womb of the mother the traction was immediately increased on the neck. On removing the circumvolutions of the cord, Dr. Freney was surprised to find a depression in the neck, corresponding with the size of the cord, and this was paler than the surrounding skin. After fifteen minutes of incessant efforts, respiration appeared, and the child is now living.

Dr. Freney inquires what would have been the opinion concerning these appearances in a case supposed to be criminal, particularly as he was obliged to use the insufflation of air into the lungs.

The answer of the editor is quite satisfactory. The present is a remarkable and an uncommon case. It illustrates the possibility of the umbilical cord acting as a cause of strangulation in the womb of the mother. Still, the circular impression observed is only the semblance of what would have resulted from the actual application of a cord. There was no ecchymosis; the furrow was neither deep nor unequal, as is seen in ordinary strangulation. It is impossible, as the child survived, to show that the furrow did not, in this instance, take the appearance of parchment; or that the subjacent cellular tissue was injured. Each of these is seen in instances of criminality. (*Journal de Médecine et de Chirurgie*, November, 1850.)

takes place when a living child is shut up in a tight box or coffin. The oxygen of the air contained in a box is gradually consumed, until it becomes irrespirable.*

In cases of this kind, experiments upon the lungs will show whether the child was born alive or not. If born alive, the absence of any other cause of death, and the suspicious and unnatural circumstances attending the place where the child may be found, will sometimes lead to a judgment in the case.

The inhalation of gases positively deleterious. The gas yielded by privies and sewers is sulphuretted hydrogen, and in the smallest quantity, and even when diluted with atmospheric air, it proves very speedily destructive of life. When new-born infants are thrown into these places, they are destroyed partly by the action of the gas, and partly by ordinary suffocation.

6. *Poisoning.* Poisons may be introduced into the system in various ways. They may be inhaled into the lungs, in the form of odors; or they may be taken into the stomach, mixed with food; or they may be received in the form of injections, or be absorbed through the skin.

When the poisonous substance has been taken into the stomach and intestines, it should be carefully examined, and subjected to the various tests which chemistry supplies for detecting its presence. In cases where the cutaneous absorbents have been the medium of conveying it into the system, it may be very difficult to discover the cause of death. In some instances, an eruption on the skin, and the peculiar odor of the substance which has been employed, aided by the circumstantial evidence, may lead to a discovery.

* On this subject, Dr. Paris makes the following statement: "Infants appear to be less able to sustain the deprivation of oxygen than adults, and in some cases on record, life has been destroyed by circumstances that we should have *a priori* considered as hardly adequate to such an effect. A case is related of a child who was suffocated by some drunken men having repeatedly blown out a candle, and held the smoking wick under its nose. The faculty of Leipsic investigated the circumstances, and declared the death to have taken place in consequence of suffocation." (Medical Jurisprudence, by Paris and Fonblanque, vol. ii. p. 55.)

II. *Accidental modes in which a child's life may be lost.*

Having thus considered the various criminal modes resorted to for the purpose of destroying the life of the new-born infant, I come now to notice the various causes which may destroy it, without any criminal agency. Under this head there are three different classes of causes which require notice:—

1. Accidental circumstances connected with delivery.
2. Various malformations, inconsistent with the continuance of life after birth.
3. Various diseases which may have commenced anterior to, or immediately after, birth.

1. *Various causes connected with delivery, which may occasion the death of a new-born child, without any criminal intention.*

A new-born child may sometimes lose its life, from its not being removed from that state of supination in which it sometimes comes into the world. In this way respiration may be effectually prevented, by the mouth of the child being closely applied to the bedclothes, or other substances. Dr. W. Hunter relates an instance of a child dying, from its face lying in a pool made by the uterine discharges, where not the least suspicion of any evil design appears to have been attached to the mother.* A case in some respects similar occurred to myself. A female, whom I had engaged to attend in her lying-in, was suddenly taken with labor-pains, rather before the time the event was anticipated. I was sent for shortly after, but before I reached the house she had been delivered of a male child, which I found lying dead under the bedclothes. The mother informed me that the child had been born about half an hour, and that she had heard it cry, but as she was alone, she had been unable to give it any assistance. Not the slightest suspicion of any criminal intention could for a single moment be cherished. The female was married, and

* Observations on the uncertainty of the signs of murder in the case of bastard children. (Medical Observations and Inquiries, vol. vi.)

had engaged me to attend her some weeks before the event took place.

A new-born child may lose its life from the suddenness and rapidity of the labor. Dr. Hunter relates a case, where a female was seized during the night, and the child was born before he arrived. She held herself in one posture, to prevent the child from being stifled; but although it had cried, yet on the arrival of Dr. Hunter it was found dead.* A case is recorded by Mr. Tatham, where a patient, in her fourth pregnancy, after three trifling pains, was passing along the lobby to her bedroom, when the infant was suddenly thrown on the floor, bleeding profusely at the umbilicus, but ultimately recovered.† Another case is related by the same authority, of a female who, in the last month of her first pregnancy, while the family were absent, was obliged to go to the night-chair—a great discharge of water took place, followed by twin children, which dropped into the utensil; from which, however, they were speedily rescued, but died within a week.‡ Besides this, the labor may be attended with faintings or convulsions of the mother, so as to render her incompetent to offer any assistance to the child.

With regard to the fact of the death of the child occurring from the mere rapidity and suddenness of the labor, it must be exceedingly rare, and under very peculiar circumstances; and when it does occur, it must be either from the child being suffocated by falling into a privy, at the time of delivery, or by the injury which it receives from falling, in cases where a female happens to be delivered while standing. The first of these is no doubt possible, and probably has occurred.§ From

* Medical Observations and Inquiries, vol. vi. p. 286.

† Medical Repository for April, 1829.

‡ Campbell's Midwifery, p. 155.

§ Dr. John Gordon Smith relates that "a woman was tried at the Old Bailey for the murder of her child, by dropping it into a privy. She declared that while there for a natural purpose, an uncommon pain took her, the child fell, and she sat some time before she was able to stir. On this occasion, a practitioner was examined on the probability of such an event, who stated that an instance came within his knowledge, where, while the midwife was playing at cards in the room, the woman was taken suddenly

the experiments of Chaussier, detailed in a previous page, we should be led to infer that children born while the female is in the standing posture would be seriously injured by the fall. The cases, however, are by no means analogous, and experience has proved that, under these circumstances, there is really very little risk to the child. This point is fully established by the report of Dr. Klein, of Stuttgart. As a member of the superior council of health, he caused a circular to be addressed to the accoucheurs of the kingdom of Wurtemberg, requesting reports of the cases of sudden expulsion of the foetus which might be observed by them. Returns were made of one hundred and eighty-three cases. Of these, one hundred and fifty-five children were expelled while the mothers were in the upright posture, twenty-two when sitting, and six when on the knees. Twenty-one happened at the first labor. Of the whole number not one child died; no fracture of the bones took place, nor any severe injury. Two only suffered temporary insensibility, and one an external wound with ecchymosis over the right parietal bone.*

An interesting case in which this question was involved, occurred in the State of Massachusetts in 1834. Margaret Croslan, an unmarried colored girl, aged twenty-two, was indicted for murdering her infant illegitimate child, and concealing its death. On the trial, it was proved that the body was that of a full-grown male child. There were no external marks of violence, excepting signs of effused fluid water under the scalp covering the frontal bones. "Blood was found in considerable quantity, partly fluid, and partly coagulated. The pericranium was separated from the bone, and the parietal bones were both fractured, the left one in three places, the

and the child dropped on the floor." Dr. Smith adds: "It recently happened in the circle of my own acquaintance, that a lady who had borne several children, and must therefore have been alive to the import of uneasiness in the last hours of pregnancy, was sitting in company at dinner, and perfectly free from any consciousness of approaching labor, when she experienced an inclination to repair to the water-closet. She had scarcely got there when she was delivered of a child. Had the place of retirement been constructed differently," adds Dr. Smith, "this infant might have perished." (*Principles of Forensic Medicine*, pp. 381, 382.)

* Arrowsmith, in the *Cyclopedia of Practical Medicine*, vol. ii. p. 693.

right in one." The chest was opened, and portions of each lung were cut off, and on being put into water, floated. This appears to have been all the examination that was made. By the prosecution, it was argued that the child was born alive, and came to its death by intentional violence applied to the head. For the defence, it was contended that the prisoner had been taken suddenly in labor in the yard, that the child was delivered while the woman was in a standing position, and that the injury of the head was caused by its falling on the ground, which was hard and frozen. The jury brought in a verdict of acquittal.* In reviewing this case, I cannot help thinking that the prisoner owed her acquittal more to the ingenuity of her counsel than to the justice of her cause.

Accidental hemorrhage from the umbilical cord. I have already spoken of neglecting to tie the cord with a criminal intent. It should be recollected that although it has been resorted to with the latter object in view, yet in many, perhaps in most cases, it may be the result of ignorance. It should not be forgotten, too, that this is most likely to occur in those very cases which become the subject of judicial inquiry, inasmuch as in these the female, for obvious reasons, is frequently shut out from the benefit of professional assistance. Besides this, hemorrhage from the umbilical cord may occur under a variety of other circumstances purely accidental. Sometimes it may occur from a proper ligature not being applied to the cord. Sometimes the cord is very thick, in consequence of a very large quantity of glutinous matter being contained in it. When this is the case, the ordinary ligatures will not prevent bleeding. After the cord is divided, it becomes lessened in size, and the ligature which at first was tight, will now be found loose, and the mouths of the umbilical vessels open. Sometimes the cord will be found ossified, or in a state of cartilaginous hardness. A case of this kind is related by Mr. Logan, in which the cord gave way several times from pressure of the ligature, and from pulling on it during the expulsion of the placenta.† Dr. Dewees relates

* A full and able account of this case is given by Charles A. Lee, M.D., *American Journal of Med. Sciences*, vol. xvii. p. 327.

† *Edinburgh Medical and Surgical Journal*, vol. xxxvii. p. 276.

another case, in which a dangerous hemorrhage took place in a child three days old, and which, on examination, was found to be owing to a varicose state of the cord.

There is yet another accident which sometimes happens; hemorrhage may occur where the child is suddenly expelled and the cord ruptured, no immediate assistance being at hand. Mr. Custance relates a case of protracted labor where the child was suddenly expelled *on the bed* with such violence as to rupture it very near the body. Although there was no hemorrhage, it died in a few hours.* Another case is related by Mr. Chamberlayne, in which the cord broke off, (just in the right place, too,) in consequence of the violent expulsion of the child.† In cases of this kind, however, where the cord is torn off, it is to be recollected that hemorrhage is not so likely to occur as when it is cut.

A child may die from prematurely tying the umbilical cord. We know that the circulation by the cord and respiration are vicarious functions, and if the former be arrested before the latter is in operation, life must cease. It is accordingly laid down as a rule by practical writers, that the cord should never be tied or divided until respiration has been established.

That the neglect of this important rule of practice is an occasional cause of death to the new-born infant in the hands of ignorant midwives and practitioners, does not admit of a doubt. Dr. Dewees states that he has seen "several instances of death, and this of a painful protracted kind, from the premature application of the ligature."‡ By Dr. Eberle a case is recorded which illustrates the evil effects of premature tying of the cord. The child breathed freely as soon as it was born. After waiting three or four minutes, until the cord pulsated feebly, it was tied. As soon as the ligature was drawn, the breathing became catching, irregular, and in a few moments almost wholly suspended, and the lips acquired a deep livid hue. The cord was immediately divided below the

* Lancet, vol. v. pp. 120, 121.

† London Medical and Surgical Journal, vol. vii. p. 284.

‡ A Treatise on the Physical and Medical Treatment of Children, by W. P. Dewees, M.D., p. 260.

ligature, but only a few drops of blood could be obtained from it, and it was only with the greatest difficulty that the action of the heart and lungs were re-established.* Dr. Campbell records a similar case, in which the application of the ligature was followed by breathlessness and lividity of countenance. The child was relieved by the application of two leeches to the region of the heart.†

2. *Congenital malformations of certain organs.*

These are by no means uncommon, and as they might be found in cases which become the subjects of judicial investigation, and give rise to doubts as to the cause of death, it is necessary to show to what extent they may interfere with the continuance of life in the new-born infant.

Malformations of the heart and vascular system. Of these the following have been observed and recorded:—

A congenital opening between the two ventricles. Several instances of this kind are on record. Dr. Hunter relates the case of a still-born child at six months, who had a hole in the septum of the two ventricles large enough to allow a goose-quill to pass through it.‡ Another similar case is related by Dr. Pulteney. In this instance, the person lived to nearly fourteen years of age.§

Corvisart gives the case of a child twelve years old, in whom, on dissection, there was found an aperture in the septum of the ventricles large enough to admit the extremity of the little finger. From the appearance of the aperture, there was good reason for believing that it was congenital.||

Dr. Hunter relates the case of a patient who reached his thirteenth year, in whom, on dissection, the pulmonary artery was found very small, and an opening of the size of the thumb led from the right into the left ventricle. This patient had been in ill health since his birth; had been subject to fits from

* A Treatise on the Diseases and Physical Education of Children, by John Eberle, M.D., p. 86; second edition.

† Midwifery, p. 152.

‡ Baillie's Morbid Anatomy, p. 24; Medical Observations, vol. vi.

§ Medical Transactions, vol. iii.

|| Corvisart, p. 207; also, p. 229.

his earliest years, during which his complexion became of a dusky hue. He died in one of these paroxysms.*

Where the heart consists only of one auricle and one ventricle. This is a very rare malformation. Mr. Burns says there is only one case on record, and that is by Mr. Wilson. This was in a child who died seven days old, and whose body was brought to the Theatre of Windmill Street for dissection. In this case there was one vessel which originated from the ventricle and divided into two branches, the one to the lungs, and the other to the rest of the body.†

Another case, however, is recorded by Billard. This child lived fifteen days. During this period it was affected with cyanose; had frequently syncopes and fits of threatened suffocation, in one of which it died.‡ This malformation is plainly inconsistent with the long continuance of life.

Where the aorta arises from both ventricles. Corvisart gives a case from Sandifort, in which the subject died at the age of twelve years. During this period, it had from its second year been attacked with all the symptoms denoting disease of the heart, of which it died. On dissection, it was found that besides the existence of the foramen ovale and dilatation of the right ventricle, the aorta, instead of rising from the left ventricle only, had a mouth in each of the ventricles.§

In two cases recorded by Mr. Burns, the persons led a most miserable life, and were subject, on every trivial exertion, to those paroxysms which are produced by a mixture of venous and arterial blood. At last they died dropsical.||

Another case is recorded by Dr. Ray, of Eastport, in the State of Maine. The child lived to the age of thirteen months. During the first five months of its life, nothing peculiar was perceived about it but a slight blueness of the ends of the fingers, the eyelids, root of the nose, and mouth; after this it

* Observations on some of the most frequent and important diseases of the heart, etc., by Allan Burns, p. 20; Baillie, p. 23.

† Ibid., p. 27.

‡ *Traité des Maladies des Enfants*, etc., par C. M. Billard, p. 701; second edition.

§ Corvisart, pp. 231, 232; American edition.

|| Burns' Observations, p. 13.

suffered occasional paroxysms, resembling severe colic, attended with a dry, suffocative cough. In the intervals of the paroxysms, the child appeared to be perfectly well. On dissection, the ascending aorta and arch was found dilated to four times the capacity of the descending portion. The foramen ovale was open, and the aorta being placed astride the two ventricles, communicated with both. The ductus arteriosus was also open, and terminated in a cul-de-sac in the wall of the left ventricle; no pulmonary artery could be discovered.*

Where the pulmonary artery is impervious at its origin. This is by no means common. A case, however, is related by Dr. Hunter, which terminated fatally on the thirteenth day.†

Malformations of the respiratory organs. These, although not very common, are sometimes met with. Cases are recorded in which the thoracic parietes have been so deficient and imperfect as to leave the heart and lungs naked. Under such circumstances, it is evident that life cannot long be protracted. In some cases, the thorax may be distorted in such a way as to interfere greatly with the due expansion of the lungs, and of course with the proper performance of the function of respiration. It is clear, however, that this may exist to a very considerable extent, and yet life be continued for a number of years.

Where a congenital deficiency exists in the *diaphragm*, so as to admit the passage of some portion of the abdominal viscera into the cavity of the thorax, it is hardly possible that life can be long continued.

Malformations of the alimentary canal. These have been observed in every portion of this tract, from the mouth to the anus. The mouth has sometimes been found wanting, or obliterated; in other cases there has been an absence of the œsophagus. An instance of this kind is reported by Dr. Sonderland. The child, at birth, was apparently well formed,

* The Medical Magazine, conducted by A. L. Pierson, J. B. Flint, and E. Bartlett, Boston; vol. ii. p. 317.

† Burns' Observations, etc., p. 25.

but rejected everything that was introduced into its mouth in the way of nourishment. He died on the eighth day. On dissection, the cardiac orifice of the stomach was found wanting, and this part of the stomach was adherent to the diaphragm. The œsophagus was entirely wanting, and the pharynx terminated in a cul-de-sac.*

The *stomach* is subject to malformations as regards shape and displacements. These, however, do not interfere with the continuance of life, provided the orifices of this organ be free.

Malformations of the *intestinal canal* are numerous and various. Those which are particularly worthy of notice in this connection, are those in which the canal is obliterated, or interrupted, or contracted. Dr. Schæfer relates the case of a child which died on the seventh day after birth. On dissection, the *duodenum* was found terminating in a cul-de-sac, and a complete interruption thus existed in the intestinal canal. This child, during its life, had passed neither meconium nor urine, and vomited liquid matter of a brown character.† Another case, of a similar character, is reported by Billard. In this case the child died on the third day. It had not passed any meconium, and had vomited freely a yellowish fluid.‡

The most common of these malformations, however, are those of the *rectum*. In some cases, there is simply a contraction and closure of the anus; in other cases, the rectum itself is partly deficient, and terminates in a cul-de-sac; while in others again, the rectum terminates in the bladder, or in the vagina.§ Now, in all these cases, the life of the child must be lost inevitably in a very few days, unless the difficulty can be relieved by an operation.

3. *Various diseases, which may be either congenital, or occur immediately after birth.*

This is the last class of accidental causes to which the death of a new-born infant may be owing.

* Billard, p. 285.

† Ibid., p. 363.

‡ Ibid., p. 364.

§ Ibid., pp. 367, 370; Baillie's *Morb. Anat.*, p. 114; Campbell's *Mid.*, p. 571.

Morbus cæruleus. Cyanosis. This is commonly known by the name of the *blue disease*, from the peculiar color of the skin which characterizes it. The part more particularly affected is the face. During crying or any other effort on the part of the child, the color becomes much deeper. Besides the peculiar color of the skin, the symptoms are, disordered circulation, disturbed respiration, and diminished temperature of the whole body. The symptoms are from time to time aggravated, and the patient is attacked with the most distressing paroxysms of laborious breathing, fainting, palpitation, and suffocation. During these paroxysms life is generally in danger, and is frequently lost. Concerning the causes of this curious affection, there is some difference of opinion. Formerly, it was supposed to be invariably owing to the foramen ovale remaining open. This, however, is not the case, inasmuch as it has been found to be associated with a number of malformations of the heart and large blood-vessels.*

From what has been already stated in relation to these malformations, it is easy to appreciate the kind of danger to which a new-born infant is subject, in whom they may be found to exist. While in some cases death may take place in a few hours or days after birth, in others again, existence has been protracted for many years. As, however, life is always in danger in these cases, the just and certainly humane conclusion in a case of alleged infanticide, and where this disease might be urged as the cause of death, would be to admit that it might be so, provided said malformations were actually found on dissection, and provided no other cause of death could be detected.

Organic diseases of the heart and blood-vessels. By Billard a case is recorded of a child who, from birth, was affected with frequent syncope, difficult breathing, discoloration of the nostrils and lips, and disordered circulation. It died, after suffering in this way about two months. On dissection, the

* For a condensed, but excellent view of this subject, see a Dictionary of Practical Medicine, by James Copland, M.D., vol. i. p. 199; American edition.

heart was found 'almost as large as a hen's egg, with dilatation of the right auricle and ventricle.*

Another curious and unique case is recorded by the same author, of a child who had an *aneurism of the ductus arteriosus*. It died on the fourth day, and betrayed no symptoms during life of the existence of this aneurism. It was about the size of a cherry pit.†

Pericarditis. By Billard this disease is supposed to be more common in new-born infants than at any other period of life. In seven hundred autopsic examinations which he made at the Foundling Hospital of Paris, he found seven well-marked cases of pericarditis; two of these were in children who died on the second day after birth. In one, an infant of two days old, he found the adhesions of the pericardium so solid as to lead to the belief that the disease was of long standing, and must have commenced while the foetus was still in utero.‡

Pneumonia and pleuritis. These affections, though rare, may sometimes exist in the foetal state. Billard states that in three infants who died on the first day after birth, he found the texture of the lungs so altered as to lead to the belief that disease must have commenced antecedent to birth. In two cases, the left lung was hepatized at its base.§ In these, there was no doubt that this condition of the lungs interfered with the establishment of respiration, and was the cause of death.

Inflammation of the *larynx* has not been observed as occurring in the foetal state. Billard, however, states that he has frequently observed in foetuses, born before the time, a congestion of blood about these parts. The mucous membrane of the larynx and trachea was of a violet color, and at the same time there was an extravasation of blood extending even into the bronchiæ. He presumes there must have been in these cases a great determination of blood to those parts in the last moments of intra-uterine life, or during the act of delivery.||

* Billard, p. 589.

† Ibid., p. 591.

‡ Ibid., pp. 595, 703.

§ Ibid., p. 521.

|| Ibid., p. 494.

With regard to affections of the lungs, it is also to be recollected that infants are occasionally liable to be attacked with many of them immediately after birth, and they may prove fatal in a few days. In all cases of this kind, however, the appearances on dissection will throw light upon the cause of death.

Diseases of the alimentary canal. Billard states that in two cases in which new-born infants died a short time after birth, he found ulcerations in the œsophagus, which from their appearance must have been developed during intra-uterine life, and which, from the progress they made after birth, must have hastened their death.*

The same author relates cases in which there was every reason to believe that *inflammation of the stomach* existed previous to birth, and was the cause of death after birth.†

Ramollissement of the intestines has also been noticed by Billard, in children who have died a short time after birth.

[In all these cases a thorough and careful post-mortem examination will throw a clear light on the cause of death, whether malformation or intra-uterine disease. A neglect of such examination has led to blunders innumerable.—C. R. G.]

Of the examination of the mother.

Having gone through with the examination of the child, and having ascertained that it was born alive, and that its death was owing to violence, we are next to inquire into the relations of it with the supposed mother. As already stated, the questions here to be investigated are the following:—

Quest. I. *Has the woman been actually delivered?* The signs of delivery have already been discussed in a previous chapter.

Quest. II. *Do the signs of delivery in the mother correspond as to time, etc., with the appearance of the child?*

By comparing the observations made upon the child with the signs observed upon the female, a rational opinion can

* Billard, p. 687.

† Ibid., pp. 311, 689.

easily be formed, whether any incongruity exists between them, and the inference of course is obvious.

Circumstantial evidence. Although this does not strictly appertain to a medical discussion of the subject, yet there are some points embraced under it, concerning which the testimony of the physician may be required.

1. It may be urged in excuse for a woman on trial for child-murder, that from the uncertainty of the signs of pregnancy she may have been ignorant of her actual condition, and therefore may have been suddenly overtaken with the pains of labor when it was out of her power to command assistance, and thus the child have lost its life. To all this a very plain and concise reply may be made. However difficult it may be for a physician to say positively whether a woman is pregnant or not, yet we can scarcely suppose the woman herself to entertain much doubt on the subject, especially in a first pregnancy, which it almost always is in cases of infanticide. If she has yielded to the solicitations of a seducer, and if she afterwards experiences those changes and developments in her system which accompany a state of impregnation, she cannot but be conscious of her true situation, and, therefore, any arguments drawn from this source ought to have no weight.

[I think this stated too strongly; the arguments drawn from this source should surely have *some* weight; it is for the jury to say how much.—C. R. G.]

2. It may be urged in the defence of a female accused of destroying her child, that she may have been laboring under puerperal mania—in other words, that she was insane. A case of this kind appears actually to have occurred, and is related by Dr. Paris. “In the year 1668, at Aylesbury, a married woman of good reputation being delivered of a child, and not having slept many nights, fell into a temporary phrensy, and killed her infant in the absence of any company, but company coming in she told them she had killed her infant, and *there* it lay; she was brought to jail presently, and after some sleep she recovered her understanding, but marveled why or how she came thither. She was indicted for

murder, and upon her trial, the whole matter appearing, it was left to the jury with this direction, that if it did appear that she had any use of reason when she did it, they were to find her guilty; but if they found her under a phrensy, though by reason of her late delivery and want of sleep, they should acquit her; that had there been any occasion to move her to this fact, as to hide her shame, which is ordinarily the case of such as are delivered of bastard children and destroy them; or if there had been jealousy of the husband that the child had been none of his; or if she had hid the infant, or denied the fact, these had been evidences that the phrensy had been counterfeit. But none of these appearing, and the honesty and virtuous deportment of the woman in her health being known to the jury, and many circumstances of insanity appearing, the jury found her not guilty, to the satisfaction of all who heard it.”* On this case, Dr. Paris justly remarks: “Had this woman been of doubtful character, though innocent, she might have been executed for want of medical evidence to prove the nature and frequency of puerperal insanity.”†

Of the method of conducting examinations in cases of infanticide.

In every case of infanticide so much depends upon the testimony furnished by the physician, that it becomes a sacred duty on his part to investigate, with the utmost fidelity and impartiality, every circumstance which may aid him in coming to a satisfactory and enlightened decision. The labor of such investigation is doubtless great and unpleasant; but unless submitted to by the professional witness, he certainly cannot be considered as qualified to give his evidence in a case which involves the life of a fellow-being.

External examination of the child. This should embrace the following particulars:—

(a.) Everything relating to its external appearance, shape,

* Hale's Pleas of the Crown, p. 36.

† Paris and Fonblanque's Medical Jurisprudence, vol. iii. pp. 129, 130.

conformation, condition as to putrefaction, wounds, spots, ecchymoses, etc.

(b.) Its size, including not merely the size of the whole body as to length, but the dimensions of the head and of the thorax.

(c.) Its weight; longitudinal centre of the body.

(d.) The condition of the umbilical cord.

Internal examination. This should include,—

1. The condition of the respiratory organs:

(a.) The shape of the thorax.

(b.) The situation of the diaphragm.

(c.) The color of the lungs.

(d.) Their volume.

(e.) Their situation.

(f.) Their shape.

(g.) Their consistence or density.

(h.) Their absolute weight.

(i.) Their specific weight.

2. The condition of the organs of circulation:

(a.) The foramen ovale.

(b.) The ductus arteriosus—its dimensions and shape.

(c.) The ductus venosus.

(d.) The state of the umbilical vessels.

3. The condition of the abdominal organs:

(a.) The liver.

(b.) The stomach and intestines—particularly the large intestines—with a view of ascertaining the presence or absence of the meconium.

(c.) The state of the urinary bladder.

4. The condition of the brain and spinal marrow.

Mode of conducting the dissection of a child.

It will be found most convenient to commence the dissection with the mouth and the cavities leading to the chest. An incision should first be made from the under lip to the top of the sternum, and another along the lower edge of the inferior maxillary bone; after which the integuments are to be dis-

sected back. The lower jaw is then to be divided at its symphysis, and the two portions separated. By bending the head back, we shall now be able to obtain a complete view of the cavity of the mouth. The position of the tongue should now be examined. If any foreign matters are found in the mouth, they should be especially observed and noted. In short, every unnatural appearance, whether morbid or artificial, should be carefully investigated and recorded.

The larynx and trachea must next be laid open. If any fluid is found it should be specially examined.

So much of the œsophagus as can now be seen is also to be examined.

The abdomen is next to be opened. The first incision is to be continued down to the lower part of the sternum, and from this point an incision made through the integuments to the spine of the ilium on each side. The triangular flap thus made is then to be turned down and the umbilical vessels to be examined and tied. The diaphragm is to be observed, whether it be much arched or otherwise. The viscera of the abdomen are next to be inspected, and everything peculiar in their appearance or condition to be noticed. The ductus venosus should be examined, whether it be pervious and contain any blood. The whole of the intestinal canal, with the stomach, should be taken out, after having tied the two ends. The contents of the stomach are to be examined, to ascertain if it contain any milk, starch, or sugar. If there is any suspicion of poison, the ordinary tests for ascertaining it should be tried. The state of the gall-bladder and urinary bladder should be examined, whether they be empty or not. Lastly, see if there be any meconium in the intestinal canal.

In opening the thorax, the ribs and sternum must be divided in the ordinary manner; in doing this, a scissors will be found a much more safe and convenient instrument than a scalpel. Having exposed the thorax, the appearance, position, and color of the lungs are to be remarked.

The aorta, the carotids, and the venæ cavæ are to be tied and cut beyond the ligatures. The trachea is now to be divided as near as possible to the lungs. The lungs should then be

taken out and weighed, and after this, subjected to the experiments already detailed. The heart is next to be examined; note whether the auricles and ventricles are filled with blood, also the state of the ductus arteriosus and that of the foramen ovale.

As the death of an infant may not unfrequently be caused by injury inflicted on the spine, it becomes necessary to examine this part also. A longitudinal incision should be made from the occiput to the sacrum—the muscles separated and turned back. By means of strong scissors the vertebræ are then to be divided on each side. The posterior part of the spine, thus separated, may easily be removed, and the whole canal exposed for examination.

In opening the head, an incision should be made from the lower part of the frontal bone down to the second or third cervical vertebra, and another at right angles to this from ear to ear. By dissecting back the integuments thus divided, the cranium will be completely exposed. The cranium should now be carefully examined, to see if there be any fractures, punctures, wounds, etc. The bones are next to be removed, and the most convenient method of doing this will be to separate them by a scissors along their membranous connection. Great care should be taken not to occasion any laceration.

The substance of the brain must be carefully investigated, and every deviation from the natural and healthy state observed. Although this examination of the brain can throw no light upon the question whether a child has been born alive, yet it may aid us materially in detecting the cause of its death.

Having completed the dissection, the inferences to be drawn from the information thus obtained have been so fully explained in the former part of this chapter as to render unnecessary any recapitulation.

PART III.

Of infanticide in its relations to medical police, including a history of legislation on the subject, and an examination of the effects of foundling hospitals.

Infanticide, which at one period prevailed so universally, and without restraint, among the most polished nations of the world, is now considered, in all enlightened countries, as a crime of the deepest dye. Mankind, on this subject, have vibrated from one extreme to the other, and it is not to be questioned, but that in modern times many an innocent female has been sacrificed to suspicion and prejudice. The *principle*, however, which now guides the moral judgment of society on this subject is undoubtedly just, for it is a crime which presupposes the obliteration of those feelings which human nature ought to be most proud of, and which, if countenanced, or but slightly punished, must lead to the most dreadful consequences.

That a young female of character and reputable connections may be betrayed by the arts of a base seducer, and when pregnant, to avoid the disgrace which must otherwise be her lot, may stifle the birth in the womb, or after it is born, in a state of phrensy, imbrue her hands in her infant's blood, in the expectation of throwing the mantle of oblivion over her crime, is a case which too frequently occurs; but even such a case, with all its palliations, cannot be considered as less than willful murder, and as such demands exemplary punishment.

It is not, however, enough for a wise legislation merely to punish crimes after they are perpetrated; it should also adopt the most effectual means of preventing their commission. In the language of a philosopher, it may be said, that "the punishment of a crime cannot be just, if the laws have not endeavored to prevent that crime by the best means which times and circumstances would allow."*

* Beccaria's Essay on Crimes and Punishments, p. 104; New York edition.

With regard to infanticide, it is impossible to suggest any method of arresting it completely, unless there be a total reformation of that corruption of manners which lies at the root of the evil. Next to this, the dread of severe punishment is the most effectual preventive. Foundling hospitals were also established with this intent; whether they have this tendency, I shall consider, after having enumerated the laws enacted by different nations for the purpose of preventing and punishing this crime.

1. *Laws against criminal abortion or fœticide.*

Although the Jewish code specified nothing relative to criminal abortion, or to the murder of the new-born infant, yet it decreed that if a pregnant woman should be *accidentally* injured in a fray between two men, so that she should abort, without any injury to her own person, the punishment was a fine, such "as the judges might determine." If the woman received any personal damage, the law of retaliation was then to operate—an eye for an eye, and a tooth for a tooth, etc. If she lost her life, death was the punishment.*

After the Romans began to consider the procuring of abortion a crime, they denounced punishments against the authors of it. These, as has been already noticed when considering the animation of the foetus, varied with the changes that took place in the philosophical sentiments of the nation. A council, convened in the palace of the emperor of Constantinople, A.D. 692, ordained that it should be punished with the same severity as homicide.†

In *France* the Roman law was adopted, and practiced upon until the revolution. Their parliaments frequently condemned midwives to be hanged for procuring abortion in girls; and physicians, surgeons, and others guilty of this crime were subjected to the same punishment.‡ The French code of 1691 commuted the punishment to twenty years' imprisonment in chains. The code Napoleon contains the following

* Exodus, chapter xxi. verses 22, 23.

† Foderé, vol. iv. p. 383.

‡ Foderé, vol. iv. p. 348.

provisions against this crime: "Every person who, by means of aliments, beverages, medicines, acts of violence, or by any other means, shall procure the untimely delivery of a pregnant woman, although with her consent, shall be sentenced to *confinement*, (reclusion.")

"The same punishment shall be inflicted upon the mother who shall make use of such means, if they are followed by abortion."

"Physicians, surgeons, apothecaries, and other officers of health, who shall prescribe or administer such means of abortion, shall, if a miscarriage ensue, be sentenced to hard labor for a limited time."*

The criminal code of *Austria*, established in 1787, by Joseph II., in which the punishment of death is totally abolished, decrees that a woman with child, using means to procure abortion, shall be punished with imprisonment for not less than fifteen nor more than thirty years, and condemnation to the public works; augmented when married.

"Accomplices advising and recommending abortion, imprisonment not less than one month nor more than five years, and condemnation to the public works. The punishment to be increased when the accomplice is the father of the infant."†

The laws of Germany punish, with from two to six years imprisonment, a woman, or her aiders, etc. who, by potions or other means, shall have willfully produced abortion within the first thirty weeks from the time of conception; and the penalty is protracted to eight, or at the utmost to ten years, when such a crime has been committed within the last month of pregnancy.

The laws of Bavaria enact similar measures.

In the Italian code it is established, "that if a woman has used means, with the intent to produce abortion, and this shall *not* have taken place, she is to be punished by imprisonment

* Article 317. For the translation of the whole code, see Walsh's *American Review*, vol. ii.

† Treatise on the Police of London, by P. Colquhoun, LL.D.; seventh edition, p. 656.

for a period of from six months to one year; but if abortion has been the consequence of such means, the imprisonment is to be of from one to five years' duration. The same penalties, but with exacerbations, are enacted against the father of the foetus, if he has been an accomplice in the crime. Finally, the delinquent who, against the will of the mother, shall have caused abortion, or have made an attempt to cause her abortion, is to be punished by from one to five years' severe imprisonment; and if the life of the mother has thereby been brought into danger, or her health injured, the duration of the penalty shall be from five to ten years."*

The English law is thus stated by Blackstone: "If a woman is quick with child, and, by a potion or otherwise, killeth it in her womb, or if any one beat her, whereby the child dieth in her body, and she is delivered of a dead child, this, though not murder, was by the ancient law *homicide*, or manslaughter. But the modern law doth not look upon this offence in quite so atrocious a light, but merely as a heinous misdemeanor."† "But, if the child be born alive, and afterwards die in consequence of the potion or beating, it will be *murder*."‡ By a subsequent law, enacted in 1803, called the Ellenborough Act, it was ordained that "if any person shall willfully and maliciously administer to, or cause to be administered to, or take any medicine, drug, or other substance or thing whatsoever, or use, or cause to be used or employed, any instrument, etc., with intent to procure the miscarriage of any woman, *not being*, or not being *proved* to be, *quick* with child at the time of committing such thing, or using such means, then, and in every such case, the person so offending, their counselors, aiders and abettors, shall be, and are declared guilty of felony, and shall be liable to be fined, imprisoned, set in and upon the pillory, publicly or privately whipped, or transported beyond the sea for any term not exceeding fourteen years."§ The same act ordains that administering medicines, drugs, etc.,

* London Medical and Physical Journal, vol. xliii. p. 96.

† Blackstone's Commentaries, vol. i. p. 129.

‡ Ibid., note by Christian.

§ Statutes at Large, 43 George III., cap. 28; Male's Medical Jurisprudence, p. 114.

with the intent to procure abortion *after quickening*, shall be punishable with death.

By 9 George IV., chapter xxxi., passed June 27, 1828, it is provided that "if any person, with intent to procure the miscarriage of any woman then being quick with child, unlawfully and maliciously shall administer to her, or cause to be taken by her any poison or other noxious thing, or shall use any instrument or other means whatever with the like intent, every such offender and every person counseling, aiding, or abetting such offender, shall be guilty of felony, and shall suffer death as a felon; and if any person, with intent to procure the miscarriage of any woman, not being, or not being proved to be, then quick with child, unlawfully and maliciously shall administer to her, or cause to be taken by her, any medicine or other thing, or shall use any instrument or other means whatever with the like intent, every such offender and every person counseling, aiding, or abetting such offender, shall be guilty of felony, and being convicted thereof, shall be liable to be transported for any term not exceeding fourteen years, nor less than seven years, or to be imprisoned, with or without hard labor, in the common jail or house of correction, for any term not exceeding three years; and if a male, to be once, twice, or thrice, publicly or privately whipped, (if the court shall so think fit,) in addition to such imprisonment."*

The *law of Scotland* on this subject appears to differ.

* There is a still later law, 1 Vict., chapter lxxxv. section 6: Whoever, with intent to procure the miscarriage of any woman, shall unlawfully administer to her, or cause to be taken by her, any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever, with the like intent, shall be guilty of felony; and on conviction thereof, may be transported for life, or for any term not less than fifteen years, or be imprisoned for any term not exceeding three years.

In *Regina v. Goodchild*,* the prisoner was indicted for using an instrument with intent to procure the miscarriage of a woman named Snowden. This female died shortly after, but it appeared on an examination of the body, that she was not pregnant.

It was objected that this was not a case under the above section, but the verdict of guilty was held to be right by the fifteen judges. (2 Carrington and Kirwan, 293.)

* Called Goodhall, in Denison's Crown Cases Reserved.

Mr. Hume, in his Commentaries on the Criminal Law of Scotland, says that all procuring of abortion, or destruction of future birth, whether quick or not, is excluded from the idea of murder, because, though it be quick, still it is only *pars viscerum matris*, and not a separate being of which it can with certainty be said whether it would have become a quick birth or not. Since Mr. Hume wrote, a case occurred in the high court of justiciary, where the subject was discussed. A surgeon and midwife, indicted for the violent procuring of abortion, were convicted and sent to Botany Bay for fourteen years.*

Mr. Alison, one of the latest writers on Scotch law, states it to be as follows: "If a person gives a potion to a woman to procure abortion, and she die in consequence, this will be murder in the person giving, if the potion given was of that powerful kind which evidently puts the woman's life at hazard." And again, "administering drugs to procure abortion is an offence at common law, and that equally whether the desired effects be produced or not." Thus cases occurred in 1806 and 1823, where persons were sentenced to transportation for using instruments to procure it; and in 1824 another was condemned to the same punishment, for administering arsenic with a like design.†

In the State of New York there have been several changes in the law on this subject, and it may be well to cite them in detail. In the Revised Statutes there were two enactments. The first quoted have reference to the death of the mother, or the unborn quick child; the last, to the procuring of abortion.

"Every person who shall administer to any woman pregnant with a quick child, any medicine, drug, or substance whatever, or shall use or employ any instrument or other means, with intent thereby to destroy such child, unless the same shall have been necessary to preserve the life of such mother, or shall have been advised by two physicians to be necessary for such purpose, shall, in case the death of such

* Edinburgh Medical and Surgical Journal, vol. vi. p. 249.

† Alison's Principles of the Criminal Law of Scotland, pp. 52 and 628.

child or of such mother be thereby produced, be deemed guilty of manslaughter in the second degree.

“The willful killing of an unborn quick child, by any injury to the mother of such child, which would be murder if it resulted in the death of such mother, shall be deemed manslaughter in the first degree.”*

The punishment for manslaughter, first degree, is imprisonment in the State prison for a term not less than ten years; for the second degree, not less than four and not more than seven years.

In the State of New York, it is provided:—

§ 1. That every person who shall administer to any woman pregnant with a quick child, or procure any such woman to take any medicine, etc., or employ any instrument or other means with intent thereby to destroy such child, unless the same shall have been necessary to preserve the life of such mother, shall, in case the death of such child or such mother be thereby produced, be deemed guilty of manslaughter in the first degree.

§ 2. Every person who shall administer to any pregnant woman, or prescribe for any such woman, or advise or procure any such woman to take any medicine, drug, substance, or thing whatever, or shall use or employ any instruments or other means whatever, with intent thereby to procure the miscarriage of any such woman, shall, upon conviction, be punished by imprisonment in a county jail, not less than three months nor more than one year.

§ 3. Every woman who shall solicit of any person any medicine, drug, or substance, or thing whatever, and shall take the same, or shall submit to any operation, or other means whatever, with intent thereby to procure a miscarriage, shall be deemed guilty of a misdemeanor, and shall, upon conviction, be punished by imprisonment in the county jail, not less than three months nor more than one year, or by a fine not exceeding one thousand dollars, or by both such fine and imprisonment.

§ 4. Any woman who shall endeavor privately, either by

* Revised Statutes, vol. ii. p. 661; Session Laws of 1830, p. 401.

herself or the procurement of others, to conceal the death of any issue of her body, which, if born alive, would by law be a bastard, whether it was born dead or alive, or whether it was murdered or not, shall be deemed guilty of a misdemeanor, and shall, on conviction thereof, be punished by imprisonment in a county jail not exceeding one year.

§ 5. Any woman who shall be convicted a second time of the offence specified in the fourth section of this act, shall be punished by imprisonment in a State prison for a term not less than two nor more than five years.*

In Massachusetts, by a very comprehensive law, passed January 31, 1845, it is provided, without the distinction of quick with child, that the offence, by whatsoever means produced, shall, if the woman die, be deemed a felony, punishable by imprisonment in the State prison not more than twenty nor less than five years. If the woman doth not die, it is a misdemeanor, punishable by imprisonment, not exceeding seven nor less than one year in the State prison, house of correction, or common jail, and by a fine not exceeding \$2000.

In Ohio, the administering any drug or the use of any instrument, with intent, etc., is punished by imprisonment not more than one year, or by fine not exceeding \$500, or by both. If the woman be pregnant with a quick child, then, in case of the death of mother or child, the punishment is imprisonment in the penitentiary not less than one nor more than seven years.

In Connecticut, the administration of any noxious substance, with intent, etc., the woman being quick with child, the punishment is imprisonment in Newgate for such time as the court shall determine, or for life.

In Missouri, the administration of poison, with intent, etc., is punished by imprisonment for a term not exceeding seven years, and a fine not exceeding \$3000.

In Virginia, any free person who shall administer any drug,

* Laws of New York, 1845 and 1846. It would seem from a statement contained in Judge Lewis' Criminal Law of the United States, page 12, that the offence of willfully causing abortion (of course without regard to the distinction of *quick* or *not quick*) is, notwithstanding the repeal of the section in the Revised Statutes, punishable at common law.

with intent, etc., and shall thereby destroy the child, or produce abortion or miscarriage, shall be confined in the penitentiary not less than one nor more than five years.

In all these cases provision is made for exempting from punishment any physician or other person, where the act is done in good faith, with intent to preserve the life of either mother or child.

2. *Laws against the murder of the new-born infant.*

This crime, in almost all civilized countries, is capital. Previous to the fourth century, the edicts of the Roman emperors against it were partial and ineffectual; toward the latter part of that century, however, it was completely prohibited. The following is the article relating to it in the Cod. Justin., lib. viii. tit. 52, de infant. expositis, 1, 2: "*Unusquisque sobolem suam nutriat. Quod si exponendam putaverit, animadversioni quæ constituta est, subiacebit.*"*

The following statement of the laws against infanticide and abortion in the middle ages, is given in the Cabinet Cyclopædia of Dr. Lardner:—

Among the Germanic nations of the middle ages, "death was the penalty of infanticide generally, even at the time of birth; or if the judge spared the midwife, she lost her eyes." Among the Bavarians there was a singular provision against abortion: "the pecuniary mulct was not only to be paid *annually* by the man who caused the abortion, but annually by his descendants to the seventh generation; for, as the child or foetus had not been baptized, and as its doom was, consequently, everlasting fire, no ordinary penalty should meet such a crime."† Among the Lombards, "in the twelfth century, we find the Lex Pompeia fully in force.‡ Infanticide was also terribly visited on the wretched mother, who was buried alive, and a stake thrust through her body. Subsequently we find some changes in the mode of punishment, as regarded both parricide and infanticide; sometimes the culprits were

* Beckman's History of Inventions, vol. iv. p. 437.

† Dunham's Europe in the Middle Ages, (Lardner, No. 49,) vol. ii. p. 145.

‡ Cod. Justin, 1, 9, pr. a. ad. Leg. Pomp. de Par.

dragged by red-hot forceps to the place of execution; but the unnatural mother, even if she were only guilty of producing abortion, was often sewed in a sack and thrown into a river. In Saxony, even at a late period, a viper, monkey, and dog were sewed in the same sack; and at a later period, too, in Siberia and Lusatia, the living grave and stake were in use.”*

The Emperor Charles V. condemned the mother to death only in cases where it could be proved that the child had been born alive.† The Caroline code, (*Constitutio Carolina*), in such cases, ordained that the guilty person should be tied in a bag with a live cock and a cat, and thrown into a river.‡

In 1556, Henry II. of France made a law condemning to death every woman convicted of having concealed her pregnancy and put to death a bastard child. This law prevailed until the year 1791,§ when everything relating to the concealment of pregnancy was repealed, and death declared to be the punishment of the murder of the child.

The penal code of the French empire enacted that “every person guilty of assassination, parricide, *infanticide*, or poisoning, shall suffer death.” (Art. 302.)

Other articles provide against the exposure and abandonment of infants. “Those who shall expose and abandon in a solitary place, a child under seven years of age, and those who may order it to be exposed, shall, on that account alone, if such order be executed, be imprisoned for a term not less than six months, and not more than two years, and fined from sixteen to two hundred francs.” (Art. 349.)

And “if, in consequence of such exposition or abandonment, the child shall be mutilated or crippled, the act shall be considered and punished as in the case of wounds voluntarily inflicted; and if the consequence be death, it shall be considered and punished as *murder*.” (Art. 351.)||

The *Austrian law* provides that “exposing a living infant, in order to abandon it to danger and death, or to leave its

* Dunham, vol. ii. p. 146.

† Foderé, vol. iv. p. 396.

‡ Male; second edition, p. 271.

§ Foderé, vol. iv. p. 365.

|| American Review, vol. ii. p. 396.

deliverance to chance, whether the infant so exposed suffers death or not, shall be punished by imprisonment for not less than eight nor more than twelve years; to be increased under circumstances of aggravation.”*

Although the *Chinese* have no law prohibiting the exposure of children, yet they inflict a slight punishment for the wanton murder of them. The following is the law on that subject: “If a father, mother, paternal grandfather or grandmother, chastises a disobedient child in a severe and unc customary manner, so that he or she dies, the party so offending shall be punished with one hundred blows.”†

The *English law* on this subject has, within a few years, been materially changed.

According to 9 George IV., chap. xxxi., “if any woman shall be delivered of a child, and shall by secret burying or otherwise disposing of the dead body of the said child, endeavor to conceal the birth thereof, every such offender shall be guilty of a misdemeanor, and shall be liable to be imprisoned, with or without hard labor, in the common jail or house of correction, for any term not exceeding two years; and it shall not be necessary to prove whether the child died before, at, or after its birth, provided that if any woman tried for the murder of her child shall be acquitted thereof, it shall be lawful for the jury to find, in case it shall so appear in evidence, that she was delivered of a child, and that she did, by secret burying or otherwise disposing of the dead body of such child, endeavor to conceal the birth thereof, and thereupon the court may pass such sentence, as if she had been convicted upon an indictment for the concealment of the birth.”

In Scotland, “if a woman conceal her pregnancy during the whole period, and shall not call for, or make use of help or assistance in the birth, and if the child shall be found dead or be a missing, she shall be subject to two years’ imprisonment.”‡

* Colquhoun, p. 66.

† La Tsing Leu Lee; being the fundamental laws, and a selection from the supplementary statutes of the penal code of China, by Sir George Staunton, F.R.S. (Quarterly Review, vol. iii. pp. 312-13.)

‡ Alison’s Principles of the Criminal Law of Scotland, p. 151.

In the State of *New York* we have no particular law concerning this crime, and as the English statutes are not in force, all trials for infanticide must of course be conducted according to the common law, and accessory circumstances can only be considered as proving the intent.*

In *Massachusetts*, according to the Revised Statutes, (Lewis, Criminal Law, p. 203,) the concealment by a woman of any issue of her body, which, if born alive, would be a bastard, so that it may not be known whether such issue was born alive or not, or whether it was not murdered, is punishable by fine or imprisonment.

In *Vermont*, a law was passed in 1797, punishing with death the murder or concealment of a bastard, if it came to its death by the neglect, violence, or procurement of the mother. This has been repealed, and in the revised laws of that State it is enacted that if a woman be privately delivered of a bastard, and it be found dead, and if there be presumptive evidence of neglect or violence on the part of the mother, the punishment shall be a fine not exceeding five hundred dollars, and imprisonment not over two years; one or both at the discretion of the court.†

In *Connecticut*, the law determines that if a woman conceal her pregnancy, and be delivered secretly of a bastard, she shall be punished by a fine of not more than one hundred and fifty dollars, or imprisonment not over three months. For concealing the death of a bastard, so that it may not be known whether it was born alive or not, or whether it was murdered or not, she is set on a gallows with a rope about her neck for one hour, and imprisoned for not more than one year.‡

In *New Jersey*, the concealment of pregnancy and delivery in secret is considered a misdemeanor, and punished by fine and imprisonment. Concealing the death of the bastard is also punished by fine and imprisonment.§

* The enactment of the English Code relative to the concealment of the death of an illegitimate child was for the first time introduced among the laws of New York, in May, 1845. (See page 583.) It is punishable with imprisonment.

† Laws of Vermont, 1808, vol. i. p. 349. ‡ Revised Laws, 1821, p. 152.

§ Digest of the Laws of New Jersey, 1833, pp. 224, 225.

In *New Hampshire*, the concealment of the death of a bastard child is made a crime, and the punishment directed is imprisonment for not more than two years, or a fine not exceeding one thousand dollars.*

In *Pennsylvania*, by the act passed in 1781, the concealment of the death of a bastard child was conclusive evidence to convict the mother. And all accessories shall have the same punishment as the principal. By the act of 5th April, 1790, the constrained presumption that the child, whose death is concealed, was, therefore, murdered by the mother, shall not be sufficient evidence to convict the party indicted, without probable presumptive proof is given that the child was born alive; and that of the 22d of March, 1794, declares "the concealment of the death of any such child shall not be conclusive evidence to convict the party indicted of the murder of her child, unless the circumstances attending it be such as shall satisfy the minds of the jury that she did willfully and maliciously destroy and take away the life of such child."†

In *Rhode Island*, the law is very similar to that in *Pennsylvania*.‡

In *South Carolina*, concealment of the death of a bastard child is presumptive, but not conclusive, evidence of murder. Acquittal will follow if it is shown to have been still-born.§

In *Delaware*, by a law passed in 1719, the concealment of the death of a bastard child is made a capital offence, except the mother can make proof by one witness at least, that the child, whose death was by her so intended to be concealed, was born dead. This, however, was repealed, and I cannot find at present any statute on this subject in the code of that State.||

In *Georgia* and *Illinois*, the concealment of the death of an illegitimate child is punished with imprisonment.¶

* Digest of the Laws of New Hampshire, 1830, p. 149.

† Remarks on Infanticide, by R. E. Griffith, M.D., Chapman's Journal, new series, vol. iv. p. 260; Laws of Pennsylvania, 1803, vol. v. p. 6; Addison's Reports, p. 1; *Pennsylvania v. Susannah M'Kee*.

‡ Laws of Rhode Island, 1798, p. 597. § Lewis' Criminal Law, p. 205.

|| Laws of Delaware, 1797, vol. i. p. 67; vol. ii. p. 670.

¶ Digest of the Laws of Georgia, 1822, p. 349; Revised Laws of Illinois, 1833, p. 177.

In *Michigan*, the laws as to the concealment of pregnancy, the delivery of the bastard child, and its death, are the same as those in New Jersey.*

3. *Foundling Hospitals.*

Foundling hospitals, by providing for the support of illegitimate children, are generally considered as a great means of preventing child-murder. The object of these institutions is no doubt commendable, but it is certain that they are not productive of that decided utility which is usually attributed to them. It is not to be denied that some good results from them, but it is by no means commensurate with the abuses to which they give rise. That they encourage illicit commerce between the sexes, discountenance marriage, increase the number of illegitimate children, and consequently the number of exposures, are facts confirmed by the history of almost every foundling hospital that has been established. Mr. Malthus states facts of this kind with regard to the foundling hospital in St. Petersburg, Russia. "To have a child," says he, "was considered as one of the most trifling faults a girl could commit. An English merchant at St. Petersburg told me that a Russian girl living in his family, under a mistress who was considered as very strict, had sent six children to the foundling hospital without the loss of her place."† It is not necessary to enter into a labored course of reasoning, to prove that the effects of these establishments are decidedly injurious to the moral character of a people. It is a position sufficiently self-evident, and as Malthus justly remarks, "an occasional child-murder, from false shame, is saved at a very high price, if it can only be done by the sacrifice of some of the best and most useful feelings of the human heart in a great part of the nation."‡

In the language of the *Edinburgh Review*, "such an estab-

* Laws of Michigan, 1820, p. 194.

† Malthus on Population, vol. i. pp. 368, 369.

‡ Malthus on Population, p. 370. For further illustrations of this fact, see a history of the present condition of public charity in France, by David Johnston, M.D., pp. 320, 321.

lishment (a foundling hospital) may safely be termed a great public nuisance, leading to unchaste life and to child-murder, beyond any other invention of the perverted wit of man; for unless it can receive the fruit of every illicit connection, which is impossible, it must needs encourage many to enter into such an intercourse, without giving them the means of providing against its consequences.”*

There is, however, another objection to foundling hospitals. The history of such establishments proves that they utterly fail of accomplishing their object, which is the preservation of the lives of children. The records of those which have been kept with the greatest care exhibit the most astonishing mortality.

In Paris, in the year 1790, more than 23,000, and in 1800, about 62,000 children were brought in, and it is estimated that eleven-thirteenths of all the foundlings perish annually through hunger and neglect.† Of 100 foundlings in the Foundling Hospital at Vienna, 54 died in the year 1789. In a recent description of this institution, it is stated that “all attempts to rear the children in the hospital itself had failed. In the most favorable years, only 30 children out of the 100 lived to the age of twelve months. In common years, 20 out of the 100 reached that age, and in bad years not even 10. In 1810, 2583 out of 2789 died. In 1811, 2519 out of 2847 died.

“In the *Charité of Berlin*, where some enjoyed the advantage of being born in the house, and of being suckled by their mothers six weeks, scarcely a fourth part survived one month.”

“Every child born in the *Hôtel-Dieu* of Paris was seized with a kind of malignant aphthæ, called *le muguet*, and not one survived who remained in the house.”

“At *Grenoble*, of every 100 received, 25 died the first year; at *Lyons*, 36; at *Rochelle*, 50; at *Munich*, 57; and at *Montpellier* even, 60. At *Cassel*, only 10 out of 741 lived 14 years. In *Rouen*, 1 in 27 reached manhood, but half of these in so miserable a state, that of 108, only two could be added to the

* *Edinburgh Review*, vol. xxxviii. p. 440.

† *Beckman's History of Inventions*, vol. iv. pp. 456, 457.

useful population. In *Vienna*, notwithstanding the princely income of the hospital, scarcely 1 in 19 is preserved. In *Petersburg*, under the most admirable management and vigilant attention of the Empress Dowager, 1200 die annually out of 3650 received. In *Moscow*, with every possible advantage, out of 37,607 admitted in the course of 20 years, only 1020 were sent out.*

The Foundling Hospital of London exhibits rather a more favorable picture. The average of those who died there under twelve months, in ten years, was only one in six, and for the last four or five, even less in proportion.†

The general fact is, however, sufficiently evident that the lives of multitudes of children are sacrificed in these hospitals. The causes, too, are evident; the want of nurses, or the mismanagement and cruelty of those that are employed, the delicacy of the infant, the want of its mother's nourishment, the vitiation of the air, and the contagious diseases to which children are more peculiarly exposed.

But do foundling hospitals diminish the number of infanticides? We have no evidence of such a result flowing from them. From the deleterious influence which they have upon the moral feelings of the female sex, we cannot believe it is the case. And it is accordingly stated, that after the foundling institution of Cassel was established,‡ not a year elapsed without some children being found murdered in that place or its vicinity.§

* *Edinburgh Med. and Surg. Journal*, vol. i. pp. 321, 322.

† *Higmore's History of the Public Charities in and near London*, p. 727; *Rees' Cyclopaedia*, art. *Hospital*.

‡ *Beckman*, vol. iv. p. 456.

§ In relation to the general effects of foundling hospitals, a most important work has recently been announced, of which only the prospectus has yet appeared; the following notice of which I take from *Silliman's Journal of Science and the Arts*. In collecting materials for his work, the author, (M. De Goureff, Rector of the University of St. Petersburg, Counselor of State, etc.,) has traveled over the greater part of Europe. According to this author, it is chiefly in Catholic countries that foundling hospitals are found. "Austria has many such institutions; Spain reckons 67; Tuscany, 12; Belgium, 18; but France, in this respect, excels other countries—she has no less than 362. Protestant countries, on the contrary, have sup-

pressed the greater part of those which had been specially founded for this purpose."

To form an idea of the advantage of the Protestant system over that of Catholic countries, the author states that "in London, the population of which amounts to 1,250,000, there were, in the five years from 1819 to 1823, only 151 children exposed; and that the number of illegitimate children received in the forty-four workhouses of that city, of which he visited a large number in 1825, amounted, during the same period, to 4668, or 933 per annum; and that about one-fifth of these are supported at the expense of their fathers. By a striking contrast, Paris, which has but two-thirds of the population of London, enumerated in the same five years, 25,277 enfans trouvés, all supported at the expense of the State."

To ascertain the contagious influence of these houses on the abandonment of new-born children, Mayence had no establishment of this kind, and from 1799 to 1811, there were exposed there thirty children. Napoleon, who imagined that in multiplying foundling hospitals, he would multiply soldiers and sailors, opened one in that town on the seventh of November, 1811, which remained until March, 1815, when it was suppressed by the Grand Duke of Hesse-Darmstadt. During this period of three years and four months, the house received 516 foundlings. Once suppressed, as the habit of exposure had not become rooted in the people, order was again restored: and in the nine succeeding years, but seven children were exposed. (*American Journal of Science and the Arts*, vol. xvii. p. 393.)

List of British and American Cases and Trials for Infanticide.

1. *William Pizzy* and *Mary Codd*, tried at Bury St. Edmunds, 1808, for feloniously administering a certain noxious and destructive substance to *Ann Cheney*, with intent to produce miscarriage. In this case, the abortion was perfected, not by the medicine, but by the subsequent introduction of an instrument into the uterus. (1)

2. *Charles Angus*, indicted and tried at Lancaster, 1808, for the murder of *Margaret Burns*, of Liverpool. In this case, the prisoner was charged with endeavoring to procure an abortion, by means of an instrument, and also by the administration of drugs, which terminated in the death of the female. This is a most important and interesting case, well worthy of being studied. (2)

(1) *Edinburgh Medical and Surgical Journal*, vol. vi. p. 244.

(2) See *Annual Medical Register* for 1808, vol. i. p. 143. *Edinburgh Medical and Surgical Journal*, vol. v. p. 220. A vindication of the opinions delivered in evidence by the medical witnesses for the crown, on a late trial at Lancaster, for murder, p. 88. An able pamphlet written by John Rutter, M.D., of Liverpool. Paris and Fonblanque, vol. ii. p. 176. A full account of this case is also given by my brother, in the chapter on *Delivery*, in this work.

3. The case of *Phillips*, tried in January, 1811, for attempting to procure abortion in *Hannah Mary Goldsmith*, by giving savine. (3)

4. The case of *Robin Collins*, tried at Chelmsford assizes, 1820, for administering steel filings and pennyroyal water, with the intent to produce abortion. (4)

5. The case of *Margaret Tinckler*, indicted at Durham, in 1781, for the murder of *Janet Parkinson*, by having inserted wooden skewers into the uterus, for the purpose of producing abortion. (5)

6. *Sarah Hill*, for infanticide. (6)

7. *Mary Eastwood*, for infanticide. (7)

8. Case in Scotland, for infanticide. (8)

9. *Sarah Little*, for infanticide, reported by P. J. Martin, surgeon. (9)

10. *Bease and Elliott*, infanticide. (10)

11. *Margaret Patterson*. A case of infanticide, examined and reported by David Scott, M.D., of Cupar-Fife, Scotland, accompanied with remarks by Professor Christian, of Edinburgh. This is a highly interesting case, and altogether the best reported one in the English language. (11)

12. Case of alleged infanticide at Aberdeen, 1804. The child died from inability on the part of the mother to aid it after birth. (12)

13. Case of infanticide at Aylesbury, in 1668. The woman murdered her child in a state of temporary insanity, and was acquitted on that ground. (13)

14. *Mary Baker*, for infanticide, reported by Dr. Robinson, of Bridgport, England. (14)

15. Case of infanticide, reported by W. Chamberlaine, surgeon in London. (15)

16. Case of infanticide, reported by Mr. F. H. Ramsbotham. (16)

17. A woman indicted and tried for infanticide, at the Sussex assizes, England, 1825. (17)

(3) Paris and Fonblanque, vol. iii. p. 86.

(4) Ibid., vol. iii. p. 88.

(5) Paris and Fonblanque, vol. iii. p. 72. Principles of Forensic Medicine, by J. Gordon Smith, M.D., p. 326. East's Plea of the Crown, tit. Murder.

(6) Edinburgh Medical and Surgical Journal, vol. xi. p. 77.

(7) Ibid., vol. xi. p. 78.

(8) Ibid., vol. xxi. p. 231.

(9) Ibid., vol. xxv. p. 34.

(10) Ibid., vol. xxxv. p. 456.

(11) Edinburgh Medical and Surgical Journal, vol. xxvi. p. 62.

(12) Paris and Fonblanque, vol. iii. p. 126, taken from Burnett's Treatise on the Criminal Law of Scotland.

(13) Paris and Fonblanque, vol. iii. p. 129.

(14) London Medical Repository, vol. xxii. p. 346.

(15) London Medical and Physical Journal, vol. vii. p. 283.

(16) London Medical Repository, vol. xxi. p. 344. Godman's Journal of Foreign Medicine and Surgery, vol. iv. p. 532.

(17) Johnson's Medico-Chirurgical Review, vol. ix. p. 239.

18. *Eliza Maria Jones*, for infanticide. Reported by Prof. Amos. (18)
 19. A case in London, of infanticide. (19)
 20. *Susanna Powell*. Trial for infanticide at Schenectady, State of New York, in 1810. (20)
 21. A trial for infanticide, October, 1831, in Jefferson County, Ohio, before the supreme court. Reported by John Andrews, M.D. (21)
 22. Trial of *Hannah Hall*, for murdering her illegitimate child, in the County of Chester, Penn., in 1833. Reported by Isaac Thomas, M.D. (22)
 23. Report of a trial for infanticide, with remarks. By Charles A. Lee, M.D., of New York. (23)
 24. Report of a trial for murder, by the administration of oil of savine, for the purpose of procuring abortion. By Charles A. Lee, M.D., of New York. (24)
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(18) London Medical Gazette, vol. x. p. 375.

(19) Lancet, vol. ix. p. 339.

(20) Report of the trial of *Susanna*, a colored woman, before the Hon. Ambrose Spencer, Esq., at a court of oyer and terminer, held at Schenectady, twenty-third October, 1810, on a charge of having murdered her infant bastard male child. By Henry W. Warner, 1810.

(21) American Journal of Medical Sciences, vol. ix. p. 257.

(22) Ibid., vol. xiii. p. 565.

(23) Ibid., vol. xvii. p. 327.

(24) Ibid., vol. xxi. p. 345.

CHAPTER IX.

LEGITIMACY.

1. Of the ordinary term of gestation—whether uniform or not. Causes that may produce mistakes in the reckoning of females. Variation observed among animals in the term of gestation. Causes which it is supposed may vary it in the human species—physiological explanations of this.
2. Premature delivery. Within what period a mature child should be deemed legitimate.
3. Protracted delivery. Remarkable cases of it in Ancient Rome, Germany, France, and England. Gardner Peerage Case: Opinions of distinguished accoucheurs on this subject. Cases.
4. Laws of various countries on the subject of legitimacy—Roman—Ancient—French—Prussian—Modern French and Scotch laws. Decisions under these. Want of positive law in England and America. English cases. Remarks on this subject.
5. Questions relating to paternity and filiation. Paternity of children where the widow marries immediately after the death of her husband. Cases in the Roman, English, and American courts. English law on this subject. Similitude and color as evidence of paternity. Cases.

THE subject of legitimacy will be considered under the following heads:—

1. Of the ordinary term of gestation.
2. Of premature delivery.
3. Of protracted delivery.
4. Of the laws on the above subjects. And
5. Of some questions relating to paternity and filiation.

I. *Of the ordinary term of gestation.*

By the common consent of mankind, the ordinary term of gestation is considered to be ten *lunar* months, or forty weeks, equal to nine *calendar* months and a week.* This period has been adopted, because general observation, in cases which

* It is very important to recollect the distinction between *lunar* and *calendar* months. Some of the diversity of statement that exists, has originated from inattention to this. Nine calendar months may be from 273 to 275 days; ten lunar months are 280 days.

allowed of accurate observation, has proved its correctness.* It is not, however, denied that differences of one or two weeks have occurred. Dr. William Hunter, in answer to a question put to him on the subject, replied that "the usual period is nine calendar months, (thirty-nine weeks,) but there is very commonly a difference of one, two, or three weeks."†

It is important to consider on what facts the calculations of females and their medical attendants are founded. I apprehend that these have not been sufficiently considered in the discussions on this subject.

Dr. Lyall, in his publication on the Gardner Peerage Case, mentions four circumstances, either one or more of which have influence in the reckoning of almost every case. They are: 1. Certain peculiar sensations experienced by some females at the time of conception, or within a few hours, or a day or two after the fruitful coitus. 2. The cessation of the catamenia. 3. The period of quickening. 4. A single coitus. If we review these, we shall find a certain degree of uncertainty to attach to each. There are some females who are not conscious of ever experiencing the first—the last is not usually applicable to married females—while the period of quickening, as we have shown in a previous chapter, varies sufficiently to render it perfectly nugatory in a calculation like the present.‡

* Take the following case by Dr. Montgomery, as an example: "A lady who had been for some time under our care in consequence of irritable uterus, went to the sea-side at Wexford, in the month of June, 1831, leaving her husband in Dublin, a temporary separation being considered essential to the recovery of her health. They did not meet until the tenth of November, on which day he went to see her; and being engaged in a public office, he returned to town the next day. The result of this visit was conception; before the end of the month, she began to experience some of the symptoms of pregnancy; and when she came to town on the twenty-second of February, she was large with child, and had quickened on the twenty-ninth of January. Her last menstruation had occurred on the eighteenth of October." She went on well through her pregnancy, and was delivered on the seventeenth of August, making exactly 280 days from the time of conception. The quickening in this case was very early, being before the completion of the twelfth week. (*Cyclopedia of Practical Medicine*, vol. iv. p. 87, art. *Succession of Inheritance*.)

† Hargrave and Butler's Note 190* to Section 188 of Coke upon Littleton.

‡ It has been suggested that the period of quickening is uniform in the

There remains only the cessation of the catamenia, and this is the point from which most females date their conception. The time generally taken, is the middle period between the last appearance of the menses, and that in which they would have recurred if pregnancy had not supervened. Some, however, calculate from the first week after the cessation.

But even this is liable to doubt and to mistake. We have mentioned that some females have bloody discharges during the early months of pregnancy, and although medical men may consider these as altogether distinct from the product of menstruation, yet the female makes no such discrimination. This, however, if ending in the birth of a child at the usual period, might lead to the belief of its being premature; but, on the other hand, the menses may have been suppressed for one or two months previous to conception taking place, and here an opportunity is given for adducing an instance of protracted gestation.

In connection with this, the variety that exists as to the return of the period of menstruation, may lead into error. Some of the older writers held that the menstrual discharge returned every twenty-eight days, or, in other words, that there was this time between the end of one period and the beginning of another. This is now very generally believed an error, the truth being that these twenty-eight days are from the commencement of one period to the commencement of another.

But even if this be granted, it is far from invariable. Dr. Davis observes, that many women menstruate at intervals of from twenty-four to twenty days, and some twice a month.* Blundell speaks of periods of three and five months. Mr. Roberton, in one hundred cases, found sixty-one who menstruated monthly, twenty-eight in three weeks, ten at very irregular intervals, and one healthy woman who had it twice a month.† Gall speaks of intervals of twenty-one, twenty-five,

same female, and that by consequence some data might thus be obtained for settling the contested point; but even this is found to be incorrect. (See page 276.)

* *Obstetric Medicine*, p. 252.

† *Edinburgh Med. and Surg. Journal*, vol. xxxviii. p. 522.

and twenty-six days.* Velpeau of twenty-two, twenty, eighteen, and even fifteen. He knew one woman who was never free more than twelve days.† Dr. Hamilton says that the average interval is twenty-three days. Mr. Oldfield, surgeon of the late Niger Expedition, says that the women along the banks of the Niger have the menses every three weeks, from seventeen to twenty-one days.‡ On the other hand, Velpeau speaks of women regular every thirty-three, thirty-five, or even every forty days.

We have thus shown the difficulties attending a precise calculation, and explained why mistakes of two, and even three weeks may sometimes occur without affecting the leading question of a regular term of gestation. If, in connection with this, we take the general sense of the individuals who are the subjects of investigation, and that of at least a fair proportion of the intelligent and scientific members of the profession particularly conversant in midwifery, we shall find that the prevailing opinion in nearly all countries is in favor of the above-mentioned regular period. [This is by no means the case at present. The number of accoucheurs who would adopt in all its strictness the opinion that "labor always occurs at two hundred and eighty days after conception, where nothing has occurred to produce a premature expulsion of the foetus," is exceedingly small.—C. R. G.]

There are many physiologists who doubt this uniformity, and advance various arguments against it.

The first, and, in my view, the most important, is drawn from the variety observed in the gestation of animals. The ancients, it appears, were aware of this, and noticed it in their writings. But the individual who has paid the greatest attention to it is M. Tessier. In a memoir presented to the National Institute, he states that he has been forty years occupied with it, and kept a register of the facts. Out of 160 cows, fourteen calved from eight months to eight months and twenty-six days, three at 270 days, fifty from 270 to 280

* Elliotson's Blumenbach, p. 465.

† Velpeau, Midwifery, p. 87.

‡ London Med. and Surg. Journal, vol. viii. p. 406.

days, sixty-eight from 280 to 290 days, twenty at 300, and five at 308 days; the extremes were thus 67 days. Of 102 mares observed, three foaled on the 311th day, one on the 314th, one on the 325th, one on the 326th, one on the 330th, forty-seven from 340 to 350 days, twenty-five from 350 to 360, twenty-one from 360 to 377, and one on the 394th day; the extremes being 83 days. With sows, the extremes were 15 days, and with rabbits, (139 observed,) 7 days, varying from 26 to 33 days.*

Earl Spencer made this the subject of observation for a number of years, and, in 1839, communicated to the English Agricultural Society the result. Out of 764 cases, three hundred and fourteen calved before the 284th day, and three hundred and ten after the 285th. At 284 days, sixty-six calved, and at 285, seventy-four calved. Earl Spencer, therefore, supposes that the probable period of gestation should be considered 284 or 285 days, and not 270, as is stated in some works of authority on husbandry. The following is a condensed view of his tables:—

At 220 days.....	1	At 286 days.....	60
“ 226 days.....	1	“ 287 “	52
“ 233 to 239 days.....	4	“ 288 “	42
“ 242 to 250 “	7	“ 289 “	45
“ 252 to 259 “	12	“ 290 “	23
“ 262 to 270 “	13	“ 291 “	31
“ 271 to 278 “	69	“ 292 “	16
“ 279 days.....	32	“ 293 “	10
“ 280 “	35	“ 294 to 299 days.....	24
“ 281 “	39	“ 304 to 305 “	2
“ 282 “	47	“ 306 to 307 “	4
“ 283 “	54	“ 313 days	1
“ 284 “	66		
“ 285 “	74		764

It thus appears “ that the shortest period of gestation, when a live calf was produced, was 220 days, and the longest, 313 days; but I have not been able,” he observes, “ to rear any calf produced at an earlier period than 242 days. Any calf

* Repertory of Arts, first series, vol. xii. p. 140. This contains a translation of Tessier's memoir. My former quotations were altogether incorrect, having been copied from Cooper's tracts.

produced at an earlier period than 260 days must be considered decidedly premature, and any period of gestation exceeding 300 days must also be considered irregular; but in the latter case the health of the product is not affected."

"There is a prevalent belief among farming men, and, I believe, farmers, that when the time of gestation of a cow is longer than usual, the produce is generally a male calf. I confess that I did not believe this to be the case, but this table shows that there is some foundation for the opinion. In order fairly to try this, the cows which calved before the 260th day, and those which calved after the 300th, ought to be omitted as being anomalous cases, as well as the cases in which twins were produced, and it will then appear that, from the cows whose period of gestation did not exceed 286 days, the number of cow calves produced was 233, and the number of bull calves, 234; while from those whose period exceeded 286 days, the number of cow calves was only 90, while the number of bull calves was 152."

The twins were as follows:—

Twin cow calves.....	7
Twin bull calves.....	5
Twin cow and bull calves.....	11
	<hr/>
	23

Total product:—

Breeding heifers.....	354
Bull calves.....	422
Heifers, twins with bulls, (Freemartins).....	11
	<hr/>
	787*

Mr. C. N. Bement, of Albany, has given, in the July (1845) number of the "Cultivator," the results of his observations on sixty-two cows. On an average, the male calves were carried 288 days, the female, 282. The shortest period was 213 days, the longest, 336. Of the former, (213 days,) he expresses doubt, as in no other instance was the period less than 260 days. Abstracting this case, the difference was 76 days. In Earl Spencer's cases it was 93.

* Journal of the Royal Agricultural Society, 1839, vol. i. part 2, p. 165.

These facts certainly show that the period of gestation is irregular among animals, and they furnish a strong argument from analogy against its uniformity in the human race. It must, however, be recollected, that even if perfectly established, it is only a favorable, and not a decisive proof.

But there are causes assigned, by which it is alleged that the ordinary term of gestation may be varied.

Changes in the constitution of the atmosphere. These, it is supposed, sometimes exert an important effect on the uterus. The authority of Hippocrates is cited, affirming that a warm winter, accompanied with rains and south winds, and succeeded by a cold and dry spring, causes abortions in females who are to be delivered in the spring. Foderé* observed frequent abortions at Martigues, in 1806, after a warm winter. He also suggests the constitution and habits of the female as likely to cause variety, and that the state of the womb, at one time irritable, at another not. But all this only proves that these circumstances predispose to abortions and premature labor, which nobody denies.

Cases are, however, adduced which certainly appear difficult of explanation, unless we allow that gestation may be protracted.†

* Foderé, vol. ii. chapter viii.

† Dr. Ramsbotham has recently, in his lectures on midwifery, suggested, in explanation of the difference in human gestation, that there are various periods which elapse during the passage of the ovum through the Fallopian tube. He refers, in illustration of this, to John Hunter's case, (*Transactions of a Society*, vol. ii.) where no fœtus could be detected at four weeks, and Sir E. Home's case, where it was seen at one week. (*London Medical Gazette*, vol. xiii. p. 553.)

Dr. Rigby's explanation of the variety in the term of gestation is the following: "The reason why labor usually terminates pregnancy at the fortieth week, is from the recurrence of a menstrual period at a time during pregnancy when the uterus, from its distention and weight of contents, is no longer able to bear that increase of irritability which accompanies those periods without being excited to throw off the ovum." (*Midwifery*, p. 139.) On this he accounts for labors either falling short of the usual time, or being somewhat prolonged. In the last case, should impregnation take place shortly before a menstrual period in a female who has already had several children, the uterus will probably not have attained such a volume or development as to prevent it passing the ninth period without expelling its con-

The most rational explanation (provided the possibility of protracted gestation be conceded) that I have yet met with, is contained in the following extract: "Why should pregnancy be more exempt from variation than other physiological conditions? Do the teeth appear at a definite period? The regular interval between the catamenial efforts is four weeks; but how often is this varied, sometimes by disease, sometimes by idiosyncrasy! The fortieth week is the natural period for the termination of pregnancy, and any departure from it is unnatural, but only in the sense that would apply to tardy or premature menstruation. It is urged, moreover, that the human foetus, like the young of the inferior classes, is not expelled from the womb till it has acquired a development adapted to extra-uterine existence; that disease and other causes may delay this development, and consequently that there is no reason for astonishment if parturition be sometimes retarded."*

II. *Of premature delivery.*

The question which requires consideration under this section is, whether a child with all the characters of maturity, as we have described them in a previous chapter, can be born before the ordinary term of gestation? And its direct bearing is on the subject of legitimacy. A husband, for example,

tents; and in this way he explains the protracted cases of Dr. Dewees and Dr. Montgomery. He has had instances of 285, 288, and 291 days, and again, three satisfactory ones, of a period within the full term. One, a case of rape, was delivered on the 260th day; in the others, sexual intercourse had only occurred once. In one case, she went 264 days, and in the other, 276 days.

* British and Foreign Med. Review, vol. ii. p. 404; Devergie, vol. i. p. 468. I have published a remarkable case of this description in the American Journal of Medical Sciences, N. S., vol. i. p. 59, which was communicated to me by Dr. James R. Manley, of New York. The facts may be condensed as follows: The husband left on the 13th of July, 1839, and did not return until November. The wife was severely and frequently ill during pregnancy, having suffered several attacks of hæmoptysis. On the sixteenth of April, parturient pains came on, and labor seemed advancing; it was actually advanced on the eighth of May, but the child was not born until the twenty-ninth of May.

has been absent from his family, and at the end of seven or eight months after his return, a full-grown healthy child is produced. Is the honor of the family to be impeached, or shall we allow that this variation is possible?

There is an intrinsic difficulty connected with this question, which should lead us to be tender in forming our opinions, viz., the variety observed in children when born at the full time. They differ in size, general appearance, apparent maturity, etc.; and sometimes, indeed, we know that eight months' children have been observed larger and healthier than others of nine months. The general appearance, then, should be noticed, but not too much relied on, in forming an opinion.

It is an unquestionable fact, that there is in many females a disposition to expel the child before the ordinary term. This not only takes place at the thirty-seventh or thirty-eighth week, when we might suppose that the female had made a mistake in her calculation, but occurs as soon as the seventh month. La Motte, in his Midwifery, mentions of two females who always brought forth at seven months. Van Swieten says he has observed similar cases, and Foderé also gives one. These are not to be considered as indicating a healthy and regular state of the uterine function, but rather as a consequence of disease.

If the question be confined in the manner already stated, we may derive aid from the appearance of the child, and the condition of the mother; and although it may be deemed *barely* possible that a child born at seven months may *occasionally* be of such a size as to be considered mature, yet I apprehend that the assertion is most frequently made by those whose character is in danger of being destroyed.

If a mature child (mature not only as to size, but also as to other characters already enumerated as indicative of perfect development*) be born before seven full months after the alleged connection, it ought certainly to be considered as illegitimate.†

* See page 391.

† Dr. Montgomery will not allow even this, and states that he never saw a child, avowedly of six or seven months growth, that presented an appearance

III. *Of protracted delivery.*

I propose to devote this section to a statement of some cases that have occurred at various times, and that have been made the subject of legal investigation, and also to a notice of the opinions of distinguished accoucheurs.

One of the oldest cases on record is mentioned by Pliny, the naturalist. He states that the Prætor, L. Papirius, declared a child, born at thirteen months, legitimate, on the ground that there was no certain period for the completion of gestation. The Emperor Adrian, at a subsequent period, as we are informed by Aulus Gellius, declared an infant legitimate which was born eleven months after the death of its father, on account of the unsuspected and undoubted virtue of the widow. A similar case is mentioned by Godefroy, in his Notes on the Novels of Justinian. A widow was delivered fourteen months after the death of her husband, and her issue pronounced legitimate by the parliament of Paris. It appeared that she had lived with the relatives of her husband during the whole period of widowhood; that they had never observed any impropriety in her conduct; and they also testified to the deep and constant grief she had manifested for the loss of her partner. The parliament of Paris appears indeed to have adjudicated on numerous cases of protracted gestation. Foderé gives an abstract of twelve cases, in which the term varied from ten to sixteen months. They seem generally to have been decided from a consideration of the character of the mother, and have hence little scientific value. (Foderé, vol. ii. p. 111 and seq.) At page 183 of the same volume is given a

even remotely resembling that of a full-grown and matured foetus. (Cyclopedia of Practical Medicine, vol. iv. p. 87, art. *Succession*.)

Valentini, however, quotes a decision which is very different. The husband had been absent a year, but returned home on the fourteenth of April, 1656, and on the succeeding twenty-sixth of September, (five months and twelve days,) his wife was delivered of a living child. The medical faculty of Leipsic decided that it was legitimate, because the mother had labored under grief and terror during her pregnancy, and because, at her delivery, she was so weak as to need bathing with wine. (Pandects, p. 86.)

case of one year and thirteen days. The mother had had labor-pains for a month, and the child's cranium was completely ossified. The medical faculty of Leipsic declared it legitimate!

Thomas Bartholin relates of a young girl at Leipsic, who, on accusing a person of having seduced her, was confined and strictly guarded. At the end of sixteen months she brought forth a child, which lived two days.

Two cases are given in Valentini's Pandects, vol. i. pp. 142, 144. In one, the faculty of Leipsic declared a child (born eleven months after the father's death) illegitimate, because beyond the term assigned by Hippocrates. In the other, the faculty of Giessen decided for the legitimacy of a child born ten months and twenty-three days, because the father was weak and feeble, and the mother of a frigid complexion. Such cases can have no scientific value.

[I shall give, in a very condensed form, a few others from Foderé and Petit. Mad. De Geur, delivered eleven months and one day after the death of her husband; child legitimated by the parliament of Rouen, on the score of character and the possibility of protracted gestation. The work of Petit was quoted in this trial. He says: "Many faculties of physic, forty-seven celebrated authors, and twenty-three French physicians, agree that it is perfectly demonstrated that gestation is frequently delayed to eleven and twelve months."

The wife of a bookseller of Wolfenbittel, delivered thirteen months after the husband's death; child legitimated, on account of her excellent character.* Cases of this sort may be multiplied *ad infinitum*, but to what purpose?—C. R. G.]

The following enlisted all the medical talent of France in its discussion: Charles —, aged upwards of seventy-two years, married Renée, aged about thirty years, at the commencement of the year 1759. They were married nearly four years without having any issue. On the 7th of October, 1762, he was taken ill with fever and violent oppression, which remained until his death. The last symptom was so severe that he was forced to sit in his bed; nor could he move with-

* Foderé, vol. ii. pp. 185, 189.

out assistance. In addition to these, he was seized with a dry gangrene of the leg on the 21st; and with this accumulation of disease he gradually sunk, and died on the 17th of November, aged seventy-six years. Renée had not slept in the chamber during his illness; but about three and a half months after his death, she suggested that she was pregnant; and on the 3d of October, 1763, (within four days of a year since the illness of her husband, and ten months and seventeen days after his death,) she was delivered of a healthy, well-formed, and full-sized child. The opinion of Louis was asked on this case, and he declared that the offspring was illegitimate. Had he rested at this, even the advocates of protracted gestation might probably not have murmured, as the circumstances were rather too powerful for the interposition of their favorite doctrines. But he took occasion, in his consultation, to attack the opinion generally, and to deny the possibility of the occurrence of such cases. Among the arguments which he adduces are the following: that the laws of nature on this subject are immutable; that the foetus, at a fixed period, has received all the nourishment of which it is susceptible from the mother, and becomes, as it were, a foreign body; that married females are very liable to error in their calculations; that the decision of tribunals in favor of protracted gestation cannot overturn a physical law; and finally, that the virtue of females in these cases is a very uncertain guide for legal decisions. "If we admit," says he, "all the facts reported by ancient and modern authors, of delivery from eleven to twenty-three months, it will be very commodious for females; and if so great a latitude is allowed for the production of posthumous heirs, the collateral ones may in all cases abandon their hope, unless sterility be actually present."*

This reasoning appears to me to carry great weight, and Mahon, in his chapter on this subject, adds several sensible remarks in confirmation of it. He observes, that if the doctrine be true that the children of old people are longer in

* Louis' *Memoire contre legitimité des naissances pretendues tardives*. Le Bas attacked this Memoir, and Louis replied in a supplement. Several other physicians, I believe, took part in the controversy.

coming to maturity, it would have been confirmed by experience, which it is not. Grief, also, and the depressing passions, are much relied upon as possessing a delaying power; but certainly these are more apt to produce abortion than protracted gestation. He accounts for the mistakes of married women by suggesting that impregnation may occur while the menses are suppressed, not only from disease, from affections of the mind, or accidental causes, which do not immediately impair the health; while the increase of volume in the abdomen may originate from this, or from numerous other causes. Toward the conclusion of his remarks, he states a difficulty, which, I believe, cannot be readily overcome. If the doctrine be allowed, how shall we distinguish a delayed child from one that is born at nine months; and by what means are we to detect fraud in such cases? Certainly, as far as we can judge from the narratives given, the infants born after protracted gestation were not distinguished for size, or other appearances of maturity.*

Gardner Peerage Case. The Hon. Alan Hyde (afterwards Lord) Gardner, a captain in the British navy, was married to Miss Adderly, at Fort St. George, in the East Indies, in 1796. On the 8th of December, 1802, Mrs. Gardner bore a child, which appeared to be the fruit of an illicit intercourse between her and Henry Jadis. An action for criminal conversation was instituted by Lord Gardner against Mr. Jadis, in the Court of King's Bench, and he obtained a verdict of £1000 damages. He then procured a sentence of divorce in the Consistory Court of the Bishop of London, and the marriage was formally dissolved. Mr. Jadis married Mrs. Gardner in 1805; and the child just alluded to was acknowledged as their offspring, and took the name of Henry Fenton Jadis, which he bore until the commencement of the present suit, when he assumed the name of Henry Fenton Gardner, and claimed, through his guardians, to be the rightful heir to the title and estates of the now deceased Lord Gardner. This nobleman had married a second time, the Hon. Miss Smith, daughter of Lord Carrington, on the 10th of April, 1809; and a son, Alan

* Mahon, vol. i. pp. 183, 185, 198, 203.

Legge Gardner, also a claimant of the peerage and estates, was born on the 29th of January, 1810. Lord Gardner died in London, January 5, 1816.

The following were the facts on which the claim of Henry Fenton Jadis was founded: "In 1802, Lord Gardner, who was then captain of the ship *Resolution*, arrived off Portsmouth, and was joined by his first wife, who remained on board with him about three weeks, and then took her departure for London on the 30th of January. It appears, however, that the *Resolution* did not sail until the 7th of February, and that some communication took place between the ship and the shore, by means of boats. Lord Gardner sailed for the West Indies, and returned home on the 11th of July, in the same year." The child, be it remembered, was born December 8th, 1802.

On these facts the following questions came up before the committee of the House of Lords: Could a child, born on the 8th of December, have been the result of sexual intercourse, either on the 30th of January or anterior to it, being in the first case 311 days? Or could a child, born as above, have been the result of intercourse on the 7th of February, being 304 days? Or lastly, could a child thus born and living to manhood, have been the result of intercourse on or after the 11th of July, being a period two or three days short of five calendar months? The last was not much discussed, and the medical testimony was principally confined to the others, making it thus a question of protracted gestation.

Seventeen medical gentlemen, some of them the most distinguished accoucheurs in London, were examined. I shall arrange their testimony with reference to their belief or disbelief in the doctrine under investigation.

Drs. Gooch and Ralph Blegborough, Sir Charles M. Clarke, Dr. D. D. Davis, Professor of Midwifery in the London University, and Mr. R. P. Pennington, may be considered as not crediting it.

Dr. Gooch considered the usual period of gestation, where it could be accurately calculated, to be nine calendar months, (39 weeks,) as from the 25th of May to the 25th of December. When the statement of Dr. William Hunter was urged to him,

that he (Dr. Hunter) "had *known* a woman bear a living child in a perfectly natural way, fourteen days later than nine calendar months, and *believed* two women to have been delivered of a child alive in the natural way, above ten calendar months from the time of conception,"* Dr. G. professed the highest respect for the character and talents of Dr. Hunter, but entertained doubts as to the accuracy of these cases; he should like to know the grounds on which the opinions were formed, and how far they depended on the testimony of the females. He stated that he had been for many years physician to two lying-in hospitals. In one of these there are two wards kept for single women, "so that cases frequently occurred in which I had an opportunity of calculating accurately the length of pregnancy." Young females, he added, in very respectable situations are often seduced; the *intercourse is single, and there is no motive whatever for misstating the fact*. It would appear that Dr. Gooch relied much for his opinion on these cases, and did not believe that the obvious objection to such testimony—viz., that the confession of more numerous connections would give a suspicion of general incontinence—would lie in the instances which he had seen.†

Dr. Blegborough had been in practice in London thirty-four years. He considered thirty-nine weeks as the period of gestation, and forty as the greatest extent. Mechanical obstructions, as from malconformation, might delay birth for five or six days; but in that case it is uniformly attended with hazard either to mother or child, or both. He had grounded his calculations on the peculiar sensations experienced by females. They have fainted, and have been extremely ill, so as to induce their friends to send for a professional man. On proper

* This answer is taken from Hargrave and Butler's Note to Coke upon Littleton, as already quoted.

† In his Midwifery, p. 135, Dr. Gooch remarks: "In general, impregnation takes place a day or two after the last menstrual period. I reckon nine calendar months. If a lady says she was taken unwell on the seventeenth of June, and continued so four days, I add one more, and from this (the twenty-second) I reckon nine calendar months, viz., the twenty-second of March, and in a large majority of cases I am right." He adds, however, that pregnancy may occur at any time during the period, and thus cause some variation.

inquiry, they will declare certain sensations, by which we know that conception has taken place, and was the cause of the feelings experienced. Upon calculating from that time, he had, in such instances, invariably found that he had been right in his surmises, and that labor had taken place certainly not later, in any instance, than forty weeks from that period. Dr. B., however, conceded that these sensations do not necessarily follow immediately upon sexual intercourse, but said that they did so frequently.

Dr. Davis considered nine calendar months as the period of gestation, and he inclined to a day, or two days, short of that period, rather than beyond it. He had met with a few cases in which patients had reckoned from a single coitus, and in all these birth took place at the 39th week. "I cannot say exactly on what day,"—but some at its conclusion, and others within it.

Sir Charles M. Clarke considered forty weeks as the full period. He observed, in answer to various questions, that he never knew a case in which fatigue and exhaustion had caused protracted gestation. He could understand that they may accelerate, but could not see how they could retard. In several instances (twenty at least) that had come under his observation, the fact of the last intercourse had been stated to him by the parties themselves, and on this he had founded his calculations. In no case had the forty weeks been exceeded.

If the calculation be founded on the suppression of menses, he deemed that the safest mode would be to calculate from its middle period; *i.e.* fourteen days from the last menstruation.

Mr. R. R. Pennington had been an accoucheur thirty-seven years, and had never known gestation protracted beyond three or four days after forty weeks, and forty weeks is the usual term. He formed his opinion from the time of conception, and this again from circumstances mentioned by the females.

It will thus be seen, that of the five witnesses that disbelieved in protracted gestation, three founded their calculations on the occurrence of a single coitus, and the remainder on peculiar sensations experienced. They differ in their terms, thus:—

Dr. Gooch says 39 weeks, or 271 to 277 days.

Dr. Blegborough, 39 to 40 weeks, 273 to 280 days.

Dr. Davis, 39 weeks, 271 to 273 days.

Sir C. M. Clarke, 40 weeks, 280 days.

Mr. Pennington, 40 weeks, 280 to 283 days.

On the other side, the following medical witnesses gave testimony: Drs. A. B. Granville, Conquest, Blundell, Merriman, Power, Hopkins, Dennison, H. Davis, and Elliotson, and Messrs. Sabine, Chinnocks, and Hawkes.

Dr. Granville gave it as his opinion, that the *usual* or *ordinary* period of gestation is comprised between the 265th day subsequent to impregnation and the 280th, or 40 weeks; but he believed that gestation might be protracted. The most prominent case mentioned by him in proof of this, was that of his own wife. She passed her menstrual period on the 7th of April, and on the 15th of August afterwards she quickened. Labor was expected in the early part of January, and accordingly pains came on; but they again subsided, and she was not delivered until February 7th; that is, 306 days, if we reckon from the day before the next expected menstruation, or 318 days, if from the middle of the two periods.

Dr. G. also stated that he was attached to two of the most extensive lying-in institutions in London, had seen much practice in them, and had particularly and carefully registered cases, taking all the leading circumstances of their history from the individuals admitted, on presenting their letters of recommendation. According to these registers, he had "known a case of 285 days from the latest period of supposed impregnation, taking as the point of departure the last day of the month previous to the missed period; that is, say 28 or 30 days after the last menstruation. Also cases of 290, 300, and 315 (but this Dr. Granville afterwards stated that he considered a case of 310) days."

In answer to the question, whether he believed it possible that a child should be begotten on the 30th of January, and born at an interval of 311 days, viz., on the 7th or 8th of December, he said, "*I am aware of no circumstance that could render it impossible.*"

I should also add, that an inquiry was attempted in some of his registered cases, but technical difficulties were interposed, and, on the whole, they were not satisfactory, even one where a female was examined in *propria persona*.*

Dr. Conquest had practiced for thirteen years, and although the majority of cases are completed within the ninth calendar month, yet he certainly had met with instances which far exceeded that date. In not fewer than twenty cases, there had been very confident assertions on the part of the women that they had exceeded the time; and in two or three instances he had taken great pains to satisfy himself, and was very sure of it. In one female, who was so certain of being confined at the anticipated time, that she had her nurse in the house, the period was exceeded nearly *five* weeks. This female had borne six children. "At that time," says Dr. Conquest, "I disbelieved all the cases I had previously heard; I had been in the habit of laughing at them as a public lecturer, but so strong was the evidence, from the most minute investigation of this case, that I was compelled to admit the accuracy of this woman's statement, and my former convictions were very much shaken." It is remarkable, that at her subsequent confinement this female again exceeded her calculations by four weeks.

* Dr. Granville afterwards resumed the discussion of this subject at the Westminster Medical Society, in December, 1829. He stated that the cases to which he had referred were capable of the most satisfactory proof, and ought not to have been rejected or trifled with on the examination. In several instances, the reckoning had been made from the last day of the lunar month immediately succeeding the last appearance of the menses, and which then extended severally to 292, 298, 299, 302, 313, 317, and 324 days. "A lady whom he had attended this year, living with her husband, and who had never, when not pregnant, been irregular in her menses, calculated her pregnancy from midway between the twenty-eight days which elapsed between her previous menstruation and the period when she ought to have menstruated again; and she then fixed upon the conclusion of ten calendar months for the day of her confinement. She proved perfectly correct; and on inquiring the reason for fixing on so protracted a period, she said that her three former children were born after a similar interval. Even supposing the conception to have taken place at the very end of the first lunar period, still the protraction must have extended two weeks at the least." (Lancet, N. S., vol. v. p. 418.)

In another instance, a lady who had borne nine children, and had been able five times to determine exactly the day on which she should be confined, exceeded the time by a month and two days. She brought forth the largest child Dr. Conquest had ever seen, after a very protracted labor.

On inquiring as to the probable cause of protracted gestation, Dr. Conquest stated that he had seen instances in which an occasional loss of blood during pregnancy appeared to interfere with the process. Mental emotions will also protract the period. He believed that eleven months had been exceeded.

On cross-examination, Dr. Conquest stated that his calculation, as to the time of birth, was founded on the time of *quickening*. He deemed this much more certain than that from menstruation. Quickening takes place from the 16th to the 20th week; but when a woman has quickened at a certain time, then, he believed with scarcely an exception, she invariably quickens at the same period afterwards.*

Now, in the females mentioned by him, the first had quickened with six children exactly at the termination of the sixteenth week, reckoning from the non-appearance of the menstrual discharge, and the period when she supposed herself to become pregnant. "This woman is an excessively irritable woman, physically and mentally; and she affirms most confidently that she invariably suffers much constitutional disturbance within one week after impregnation, and that the acts of intercourse are so seldom with her husband, that she has, in every case, been able to date with correctness, with the exception of the two (protracted) cases, and then she took the same data as the ground of her opinion."

In the second case, the opinion was deduced from the ab-

* This opinion of Dr. Conquest requires confirmation. I have already quoted a case by Dr. Montgomery, in which there was a striking variation, (page 274,) and may now add his opinion, that the time of quickening will, in the majority of cases, be found to vary in the same person in successive pregnancies. (*Signs of Pregnancy*, p. 86.) Dr. Hamilton also remarks that Dr. Conquest has stated the exception, not the general rule. (*Practical Observations*, p. 55.) [Dr. Conquest's opinion has now few, if any, supporters.—C. R. G.]

sence of menstruation and quickening. She quickened at the seventeenth week, and twenty-eight weeks from that to birth, made forty-five weeks.

Dr. Conquest was asked whether he had known a woman menstruate during pregnancy. He replied, "I think a woman does not menstruate, in the common acceptation of the term. I know a woman will lose blood periodically, but I believe these are all cases in which the extremities of certain arteries terminate below the uterus, in the upper parts of the vagina."

Dr. Blundell had personally known but one case in which pregnancy was prolonged beyond nine calendar months. This female became pregnant on the 9th of August, and was delivered on the 23d of May, (287 days.) Dr. Blundell saw her a few days after impregnation; there were symptoms of irritation about the bladder and adjacent parts, and the catamenia were absent. He had no doubt that these symptoms arose from impregnation.

This witness professed himself a believer in protracted gestation, from this case, from the observations of Tessier on brutes, showing that it actually occurs with them, and the observations of others on the human subject.

Dr. Merriman had practiced midwifery for thirty years. The ordinary period of gestation is about forty weeks; but in his own experience he had known cases to exceed this; some 285 days, some 287, two or three 296, one 303, and one 309 days. The last was of a lady who had borne six or seven children. "She always calculated her reckoning from the last day on which her monthly period ceased. On this occasion she was perfectly well on the 7th of March, and from some circumstance, which I did not press to know, she said she supposed herself to have conceived on the 8th of March." This lady was delivered on the 11th of January, being 309 days.

On cross-examination, Dr. Merriman was asked how he had calculated his protracted cases? He answered, "*From the time at which the last appearance of the menstruation ceased; from the termination of the monthly period.*" In the last case, the female had menstruated on the 7th of March; and

both females were married and lived with their husbands. It was very properly asked whether the intercourse which produced conception might not have been at any time previous to the next period, and if so, whether, allowing it only to have occurred in the middle, between the two menstruations, most of the cases would not be brought to the usual term of forty weeks, while the rest might be referred to it by admitting the opinion that pregnancy took place just before the expected menstrual period? Deduct 28 days from 309, and the result exceeds forty weeks by only *one day*. Dr. Merriman readily allowed the correctness of all these inferences. He threw out an idea that impregnation is by no means so common the day before the expected term of menstruation, as it is the day after the menstruation has ceased.*

* Dr. Merriman, at a period subsequent to the above trial, published his observations in detail. They are contained in the *Medico-Chirurgical Transactions*, vol. xiii. p. 338; and the following abstract from his paper deserves insertion here:—

“When I have been requested,” says he, “to calculate the time at which the accession of labor might be expected, I have been very exact in ascertaining the last day on which any appearance of the catamenia was distinguishable, and have reckoned forty weeks from this day, assuming that the 280th was to be considered as the legitimate day of parturition. The subjoined table shows how often this day was deviated from, and what was the actual number of days from the day of menstrual intermission to the birth of the child.”

A Table of the births of 114 mature children, calculated from, but not including, the day on which the catamenia were last distinguishable.

At 255 days,	1	At 262 days,	2		
“ 256 “	1	“ 263 “	2		
“ 259 “	1	“ 264 “	4		
—		“ 265 “	1		
3 in 37th week.		“ 266 “	4		
		—			
		13 in 38th week.			
At 267 days,	1	At 274 days,	4	At 281 days,	5
“ 268 “	1	“ 275 “	2	“ 282 “	2
“ 269 “	4	“ 276 “	4	“ 283 “	6
“ 270 “	1	“ 277 “	8	“ 284 “	1
“ 271 “	2	“ 278 “	3	“ 285 “	4
“ 272 “	2	“ 279 “	3	“ 286 “	3
“ 273 “	3	“ 280 “	9	“ 287 “	1
—		—		—	
14 in 39th week.		33 in 40th week.		22 in 41st week.	

Dr. Power had practiced midwifery for thirteen years. He was decidedly of opinion that gestation may be extended to eleven calendar months, if not longer. He had met with from thirty to fifty cases in which it exceeded the ordinary term, and some in which it went to the period just named. His opinion is deduced from the statements of the females as to the period of menstruation and the time of quickening, and also from physiological reasoning.

At 288 days,	5	At 295 days,	1	At 303 days,	1
" 289 "	2	" 296 "	2	" 305 "	1
" 290 "	2	" 297 "	2	" 306 "	2
" 292 "	4	" 298 "	4		—
" 293 "	2	" 301 "	1		4 in 44th week.
15 in 42d week.			10 in 43d week.		

From this table, Dr. Merriman thinks it fair to infer that conception is effected more commonly soon after the catamenial period has intermitted than immediately before the recurrence of that discharge. On a few occasions, he observes, the period of delivery, dated from the last appearance of the catamenia, has exceeded 44 weeks, or 308 days. The first is the case mentioned in the text. The lady has, in ten pregnancies, borne eleven children; and on all these occasions became pregnant almost immediately after the monthly discharge. In addition to the facts stated above, he observes that the child was larger than most of her former ones, and the labor was longer. In reply to the objections made on his examination, he urges that she was correct in reckoning from this datum in all her former pregnancies, and again in a succeeding one.

Another was that of Mrs. N., who was unwell in November, in 1822. She recovered on the 15th, and had no subsequent appearance. Her labor took place on the 5th of October, 323 days from the day of intermission.

A third was a female aged upwards of forty, who had not borne a child for more than nine years. She was unwell for the last time in March, 1823. She hoped from this that she had passed the critical period; but shortly after she began to enlarge in size. As this increased, it was feared that ovarian disease might be present. Dr. Merriman, however, on examination at a period when the catamenia had not recurred for twelve months, found her pregnant. She was safely delivered on the 27th of September, 1824.

There is a table, (taken from a Thesis of Dr. Dubois, in 1834,) in the third edition of Orfila, *Leçons*, vol. i. p. 258, which shows an equal irregularity. It is compiled from the narratives of *fifty females*, and shows the time of the last menstruation, the supposed period of conception, and the actual date of delivery. A great majority of the cases fall within the nine calendar months, that is, calculating from the period of conception.

See also the facts obtained in a few cases at the Philadelphia Hospital, by Dr. Burwell. (*American Journal Medical Sciences*, N. S., vol. vii. p. 318.)

Drs. Hopkins, Dennison, and H. Davis were believers in protracted gestation, but their examinations did not elicit any very positive facts.

Dr. Elliotson had, at a former period, delivered lectures on forensic medicine in London, and the result of his examination for this purpose, of works by eminent men on the point in question, led him to believe it possible.

Mr. Sabine spoke of the case of his own wife. Her last menstruation was on the 14th of September; she quickened in the second week of January, and was delivered on the 14th of August, being a ten months' case if we date from the 14th of October, or ten months and a half if from the middle of the period.

Mr. Chinnocks related a case of a female who exceeded her calculation eighteen days, but the particulars were not sufficiently investigated.

Lastly, Mr. Hawkes, an accoucheur, from Oakhampton, in Devonshire, spoke of some cases of forty-one and forty-two weeks, but no definite facts were given by him. He, however, advanced an idea that pregnancy continued longer with males than females, assigning 280 days for the latter, and 290 for the former.

Such was the medical testimony in the famous Gardner Peerage Case. I need scarcely add, that it was little heeded in the decision, that was founded on the well-established adultery of the mother of Jadis; and the son of Lord Gardner, by Miss Smith, obtained the peerage.*

I have to a certain degree anticipated the concluding purpose of this section, viz., to present the opinions of distinguished accoucheurs. It would, however, be incomplete, were I not to add some more of these, and for a reason which must

* For the details of this case I am indebted to Dr. Lyall's "Medical Evidence relative to the duration of human pregnancy, as given in the Gardner Peerage Case," first and second editions, and to Le Marchant's report of the proceedings of the House of Lords on the claims to the Barony of Gardner; London, 1828. (In the State Library.) See also *Cyclopedia of Practical Medicine*, art. *Succession*. The medical student will find remarks on this testimony in the *Edinburgh Medical and Surgical Journal*, vol. xxvii. p. 109; and *Medico-Chirurgical Review*, vol. ix. p. 170.

probably ere this have occurred to the reader. Many of the cases hitherto enumerated have the stamp of adultery on them. It is in vain to urge such as conclusive in favor of protracted gestation. I come now to some which appear unexceptionable in this respect.

The first I shall quote is from Dr. Dewees, of Philadelphia. "The husband of a lady, absent seven months in consequence of embarrassments, returned clandestinely one night, and his visit was known only to his wife, his mother, and Dr. Dewees. She was within one week of her menstrual period, which was not interrupted, but the next one was. In nine months and thirteen days (forty-one weeks) from the date of the visit, she was delivered of a healthy child."*

In a subsequent edition, he observes, "I have had every evidence this side of absolute proof, that it has been prolonged to ten calendar months, as an habitual arrangement in at least four females; that is, each went one month longer than the calculations made from an allowance of ten or twelve days after the cessation of the last menstrual period, and from the quickening, which was fixed at four months. Besides, a case within a short time has occurred in this city, where the lady was not delivered for full ten months after the departure of her husband for Europe; yet so well and so justly too did this lady stand in public estimation, that there did not attach the slightest suspicion of a sinister cause."†

* Dewees' Midwifery, p. 170. If February be included in the above-mentioned term, it will be 283 days; if not, 285 or 286 days.

† Dewees' Midwifery, p. 130, third edition. I must be pardoned in asserting, that the case adduced by Prof. Dewees, from the fourteenth volume of the New England Journal of Medicine, is not applicable to the present subject. The female became pregnant April 1, 1822; suffered much from sickness, and died undelivered, May, 1824. On dissection, the uterus was found diseased, bearing marks of inflammation, and a full-grown foetus was discovered. If we thus bring in the agency of disease, we at once decide the question, and all reasoning on the healthy state of the parts, and the consequences *naturally* resulting, is at an end.

Cases somewhat resembling the above are mentioned by Mr. Cullen, of a female who bore her child thirteen months from the time of her last menstruation; when delivered, it measured between nine and ten inches, and weighed six ounces. (London Medical Gazette, 1829.) Also by Dr. Homans, of Boston, of a female who supposed herself pregnant in September, 1827;

Professor Desormeaux gives the following case as occurring in a patient whom he attended: A lady, the mother of three children, became deranged after a severe fever. Her physician thought that pregnancy might have a beneficial effect on the mental disease, and permitted her husband to visit her, but with this restriction, that there should be an interval of three months *between each visit*, in order that, if conception took place, the risk of abortion from further intercourse might be avoided. The physician and attendants made an exact note of the time when the husband's visit took place. As soon as symptoms of pregnancy began to appear, the visits were discontinued. The lady was closely watched all the time by her female attendants. She was delivered at the end of nine calendar months and a fortnight, and Desormeaux attended her.*

Dr. Hamilton, Professor at Edinburgh, says: "In one case, many years ago, the lady exceeded the tenth revolution of the menstrual period by twelve days, another lady exceeded it by sixteen, and another by twenty-four days. The latter menstruated on the 1st of August, and was not delivered until the 28th of June. Another lady, the mother of a large family, exceeded her period by above a fortnight. On the 4th of March her husband went to England, where he resided for some months; she was delivered December 6th."

Professor Burns observes: "On the other hand, it is equally certain that some causes which we cannot explain or discover, *have the power of retarding the process*, the woman carrying the child longer than nine months, and the child when born being not larger than the average size. How long it is possible for labor to be delayed beyond the usual time, cannot be easily determined. The longest term I have met with is ten

had all its symptoms for several months, but between the sixth and seventh there was a great diminution of size, which continued until the ninth month. At this time she had regular labor-pains, which continued for twenty-four hours, when they ceased, and she returned to her usual occupations. In September, 1828, she was seized with uterine hemorrhage and labor-pains; and a fœtus one and a half inch long, with a placenta, was expelled. (*Boston Medical and Surgical Journal*, vol. ii. p. 372.)

* Dr. Granville, in *Lancet*, N. S., vol. v. p. 418.

calendar months and ten days, dated from the last menstruation. In the case of one lady who went this length, her regular menstrual period was five weeks, and in her other pregnancies, she was confined exactly two days before the expiration of ten calendar months after menstruation.”*

Velpéau knew a woman who computed that she was four months gone when she came to his amphitheatre. He distinctly felt both the active and passive motions of the fœtus. Appearances of labor took place at the end of the ninth month, but they were soon suspended, and did not return for thirty days. She then languished a whole week before she was delivered, so that, in fact, this took place on the 310th day.†

Some other striking cases might be added to the above, but enough, I presume, have been given.

To the long list already noticed, of believers in the doctrine of protracted gestation, must be joined the names of Haller, Zacchias, Petit, Harvey, Mauriceau, Smellie, and a host of what may, by distinction, be called the elder writers. Among the physicians of our own day, may be mentioned the names

* Quoted in *Cyclopædia of Practical Medicine*, art. *Succession*, vol. iv. p. 90. Dr. Hamilton thinks, “that if the character of the woman be unexceptionable, a favorable report should be given for the mother, though the child should not be produced until *near ten calendar months after the death or sudden absence of the husband*. He used to say in his lectures, that in his own practice he never knew a woman to exceed the eleventh menstrual period.” (Note by Dr. Lyall, in his *Gardner Peerage Case*, p. 43.)

We have now the published opinion of Dr. Hamilton. In his *Practical Observations on subjects relating to Midwifery*, the following remark occurs: “I am quite certain that the term allowed by the Code Napoleon, viz., 300 days, is too limited,” and he is inclined to regard ten calendar months, which he believes to be the established usage of the consistorial court of Scotland, as a good general rule. (Page 59.)

† Velpéau’s *Midwifery*, p. 246. May not this case come under the following exception: “Professor Jorg especially cautions us against mistaking *protracted parturition* for *protracted pregnancy*.” One case is mentioned by him where labor commenced as usual on the 280th day. The pains were weak and accompanied by remissions, and labor was not completed until after the lapse of fourteen days. “Doubtless a case of this kind would have been set down by many as one of gestation protracted to the 294th day.” (*British and Foreign Medical Review*, vol. vii. p. 137. See the case by Dr. Manley, mentioned on a former page.)

of Foderé, Capuron, Richerand, Osiander, Sprengel, Adelon, Orfila, Madame Boivin, Ryan, Montgomery and Campbell.*

* Those who wish to examine this subject further, are referred, in addition to the authorities already quoted, to Foderé, Metzger, Louis, Valentini, Schurigius' Dissertation in Schlegel, vol. iv. p. 232. Dr. Montgomery's cases, occurring under his own observation, one protracted to 291 days and the other probably longer, are given in his Signs of Pregnancy, p. 275, etc.

According to Dr. Michaelis, of Kiel, protracted gestation was *epidemic* in the Lying-in Institution of that city for the year ending July, 1818. Of 64 cases, there were 19 in which the pregnancy exceeded 300 days; 13, over 290 days; 19, in which it exceeded 280 days; 10, in which it was between 260 and 280 days; and 3 in which it was less than 260. The average of all these is 289 days. (Dunglison's Medical Intelligencer, vol. i. p. 296.)

Among individual cases, I may mention Dr. Collins', at Liverpool, in 1824, which he considered an eleven months' pregnancy, founded on the last appearance of the menses, but particularly on an examination of the os uteri, which he found, at what she called her eighth month, with difficulty distinguishable from the body of the uterus. At the end of the ninth, it was in some degree open, flat, and stretched. She had repeated pains, but these went away, and she was not delivered until two months after. She had been greatly distressed during her pregnancy, and Dr. Collins is disposed to ascribe much to this cause. (Edinburgh Medical and Surgical Journal, vol. xxv. p. 145.) There are, however, some doubts as to the precise length of this gestation. (See Lyall, and Medico-Chirurgical Review, vol. ix. p. 212.) Also a case by P. C. Blackett, (London Medical and Surgical Journal,) of a female who, in the beginning of December, 1820, was seized with retchings and sickness in the morning, vertigo, pain and tension in the breasts. During four successive pregnancies she had a regular monthly discharge, and in about two weeks after the above retchings, she had this again, and it continued monthly until she was confined. She expected this in September, 1821, but no signs of labor appeared. In October she was seized with pain in the region of the liver; and during the use of remedies, experienced motion for the first time. On the 23d of December, 1821, she was delivered of two male infants, with separate placentæ, and each weighed about eight pounds. (Boston Medical and Surgical Journal, vol. ix. p. 153.) By Dr. Ryan, of a female who menstruated the last week in February, 1826, quickened in July, but instead of being delivered in November, had spurious pains through it and the two succeeding months. The child was not born until February 28, 1827. (Medical Jurisprudence, p. 146.) Dr. Campbell, in his Midwifery, states that he has seen protracted cases 11, 13, and 18 days beyond nine calendar months. He adds, that the oftener an individual is impregnated, the more likely is the gestation to be prolonged. "In females who are pregnant for the first time, gestation seldom exceeds nine months by more than a week." (Page 71.)

In opposition to the above examples, I add the following, recently reported by Professor McKeen, of Bowdoin College. He was consulted in a case of

IV. *Of the laws of various countries on the subject of legitimacy.*

The Roman law did not consider an infant legitimate which was born later than ten months after the death of the father, or the dissolution of the marriage.* Such was also the French law prior to the revolution.

The Prussian civil code declares that an infant born three hundred and two days after the death of the husband shall be considered legitimate, and a case has occurred where one born three hundred and forty-three days after the death of the husband, was adjudged a bastard by the *legislative commission* of that country.†

The civil code now in force in France contains the following provisions: The child born in wedlock has the husband for its father. He may, however, disavow it, if he can prove that from the 300th to the 180th day before its birth, he was prevented, either by absence or some physical impossibility, from cohabiting with his wife. An infant born before 180 days after marriage, cannot be disavowed by him in the following cases: 1. When he had knowledge of his wife's pregnancy before marriage. 2. When he assisted at the act of birth, and signed a declaration of it. 3. When the infant is declared not capable of living. Lastly, the legitimacy of an infant born 300 days after the dissolution of the marriage, *may be contested*.‡

It will be observed that by the last section the child born after 300 days is not positively declared a bastard, but *its*

retroversion of the uterus of the most obstinate nature. It had probably occurred nearly a year previous to his visit. After a patient and well-managed application of means, the complaint was in a great degree removed. During all this time she had been at Topsham, the residence of Professor McKeen, eight miles from her home. She now wrote for her husband, and on Saturday, the 31st of May, he arrived, and she returned with him in the afternoon. On the 23d of February succeeding, (8 calendar months and 24 days, or 270 days,) she was safely delivered of a son. (Boston Medical and Surgical Journal, vol. xii. p. 264.)

* Foderé, vol. ii. p. 111.

† Metzger, pp. 427, 429.

‡ Code Civil, sections 312, 314, 315.

legitimacy may be contested. And Capuron,, in remarking on this, observes that it would probably be deemed legitimate if no legal investigation should take place.*

The following case was adjudicated under its provisions:—

Catharine Berard was married on the 25th of July, 1806, to François Chappellet, who, about six months after, was seized with a pleurisy, and languishing with it about eight days, died on the 20th of January, 1807. On the 3d of December of the same year, and 316 days after his death, she was delivered of a child, of which she declared the deceased Chappellet the father. An application was made to the court of Chambéry for the property to which this birth entitled her, and it was resisted by the relatives of the husband, on the ground of illegitimacy. She pleaded their cruel usage during her widowhood, the state of poverty and sorrow to which she was reduced by their treatment, and the fact that at the expiration of nine months she had experienced labor-pains, which continued until the middle of the tenth, as explanatory of this protracted gestation. The court, after quoting the article in question from the Napoleon code, argued that it gave the child a *provisionary* legitimacy until the contrary was proved by concurring facts and circumstances. They further observed, that the term of gestation in this case did not exceed that allowed by many celebrated physicians as possible, and remarked that the widow must have been in a state of sorrow and languor, in consequence of the treatment of her relatives, and thus the foetus was probably retarded. Accordingly, on the 14th of April, 1808, a decree was pronounced, declaring the child legitimate. An appeal was taken from it to the court of appeals at Grenoble.

The court, in their *arrêt textuel*, observe that as the 315th article of the Napoleon code declares that the legitimacy of the child born 300 days after the dissolution of marriage may be contested, it, by implication, destroys its claim in a disputed case, and affixes a term beyond which gestations are to be deemed illegitimate. Again, the 228th and 296th article of the same code forbid a widow or divorced female to marry

until ten months after the dissolution of marriage. Here again the term of 300 days appears to be pointed out as the longest period allowed to pregnancy. The father, also, by the 312th article, is permitted to disavow the child if he proves a physical impossibility of cohabiting with his wife for ten months previous. The court contend that the contesting of the legitimacy on the part of the relatives is equivalent to the disavowal on the part of the putative father, and conclude with remarking, that any extension beyond the term of 300 days must prove dangerous to morals and the repose of families. They therefore declared the child in question illegitimate.*

The Scotch law is concise and decisive. "To fix bastardy on a child, the husband's absence must continue till within six lunar months of the birth, and a child born after the tenth month is accounted a bastard."†

I am enabled to add some cases illustrative of its administration. James Sandy was married to Margaret Bain on the 14th of March, 1819, and died on the third of April thereafter. Bain was delivered of a child on the morning of the 1st of February, 1820, being 9 calendar months and 29 days from the death of Sandy. The brother of the deceased took possession of the property, and action was brought against him by the tutor of the child. Lord Meadowbank, as Lord Ordinary, reported in favor of the brother, on the ground that lunar months were meant in the civil law, and consequently in the law of Scotland. A different opinion was entertained by Lord Gillies, who found "that the lapse of 9 calendar months and 29 days is not sufficient, *per se*, to overturn the presumption of the child's legitimacy." It was, however, urged that

* Causes Célèbres, par Maurice Mejan, vol. vi. pp. 93 to 120.

† Erskine's Institutes of the Laws of Scotland, quoted in the Edinburgh Medical and Surgical Journal, vol. i. p. 334. Dr. Campbell (Midwifery, p. 71) disapproves of the first part. "The latter period I conceive to be no more than just, but the former certainly affords too great a latitude. There is not a well-authenticated case on record of a child being reared, when born in the middle of the seventh month, far less the conclusion of the sixth. I think six months and three weeks is the earliest period that ought to be admitted."

Sandy had from an early period of life been confined to bed, that he was incapable of procreation, and that Bain was a woman of immoral habits. The court allowed proof of these allegations, "on advising which, they waived the general point, and, in respect of the evidence, assoilized the defenders." (Found for the defendant.)*

In the case of *Stewart v. McKeand*, (Court of Session Decisions, August, 1774,) the prosecutor must have gone eleven months, or it is impossible that the defender could be the father. The court, after stating that the period being thus fixed and ascertained, repudiated the idea of the climate of Scotland, as had been urged by counsel, having the effect of protracting the term of gestation beyond nine months. No Scottish lawyer ever carried the term of legitimacy beyond ten months.†

In another instance, the husband had been in the West Indies since 1822, and on the 6th of December, 1824, the wife was delivered of a child, of which she alleged one Robertson to be the father. According to Robertson's statement, he arrived at Perth on the 30th of April, 1824, and "about a month afterwards or so" had connection with the female. This was about six months and six days before the birth of the child, and he offered to prove that it was full grown. But the court held, that the legal presumption was, that he had connection on the day of his arrival, and the interval was then eight lunar months, excepting four days. The vagueness of his plea, with the oath of the mother, induced a decision that he should support the child. The proof that the child was full grown at birth was refused.‡

A case involving this question was recently brought before the House of Lords, in England, on appeal from the Scotch courts. It is reported in *Shaw and Maclean's Scotch Cases*, vol. ii.

Innes v. Innes. Without referring to the other details, it is sufficient to state that Mr. Innes, the supposed father, left

* *Sandy v. Sandy*. Cases in the Court of Session, vol. ii. p. 406.

† *Le Marchant*, Report of the Gardner Peerage Case, Appendix, p. 337.

‡ *Robertson v. Petrie*. Cases in the Court of Session, vol. iv. p. 338.

Edinburgh on the 17th of June, 1826, that he departed from London for the continent on the 26th of that month, that he returned to Edinburgh on the 19th of September, and the appellant was born on the 14th of April, 1827. From the 17th of June to the 14th of April, are nine calendar months and 27 days, or 301 days. From the 19th of September to the 14th of April, there are 207 days, being seven lunar months and thirteen days.

It was not contended, or if contended, the plea was abandoned, that this was a premature birth, since it was proved by Dr. Thompson, who delivered the mother, that the appellant was "a full-grown birth." The question, therefore, was confined to the point of protracted gestation, and on this, the following testimony was presented:—

For the pursuers, (plaintiff,) Dr. James Hamilton, Jr., physician in Edinburgh, Professor of Midwifery in the University of Edinburgh, depones, that he thinks that ten calendar months is an unusually long period of gestation, but not by any means without precedent; that in the course of his practice, he has had occasion to know a very few cases of such protracted gestation, with regard to which he could entertain no doubt; that he has known one case of a patient passing eleven menstrual periods by seven days; that by calendar months, the deponent means consecutive months, beginning at any one month in the year. Interrogated for the defenders, whether the number of cases which he has known in which gestation was protracted to ten calendar months, has, in his experience, been so great as one in a thousand? Depones, certainly not. Interrogated, whether it may have been one out of two thousand, or three, or four, or five thousand? Depones, that it is impossible to answer this, because a person does not think of keeping a list. Interrogated, whether in computing the period of gestation, a medical man must not necessarily depend on the statements of the woman, as to the period from which conception is supposed to commence? Depones, that the information obtained from the patient relates to the date of the last menstruation.

Dr. John Moir, Surgeon to the Lying-in Hospital, Edin-

burgh, gave similar testimony in favor of prolongation of the period in a few cases.

For the defenders. Dr. John Thatcher, physician in Edinburgh, deposed "that he had been in practice as an accoucheur for nearly thirty years, during which he delivered above 10,000 patients; that gestation protracted beyond nine calendar months is a possible, but not a very probable circumstance. Interrogated, whether he believes in a gestation of ten months? Depones, that two such cases, perhaps three, have been reported to him; but that he considered these, and considers such cases generally, as founded solely on miscalculation or misapprehension; that wherever the woman is of bad character, or has an interest to deceive, he would most assuredly ascribe the statement, that she has gone long beyond the ordinary period, to these circumstances. Interrogated, whether in judging accurately of the exact period of gestation, he is not obliged to depend entirely upon the statements of the woman, or at least to depend so much upon these statements, that no certain conclusion can be drawn independently of them? Depones, that in general, in respectable practice, certainly he does rely upon the statement of the woman, but that in the later months of pregnancy, if required, accurate and scientific examination could be made correctly, or nearly so, to ascertain its state of advancement, independent of any statement on the part of the mother, but that if no such examination be made, the woman's statements are the only guide; that women without any motive of deception, are frequently mistaken as to the period of gestation. Interrogated, whether the woman, when there is any unusual protraction, must not be aware of this fact? Depones, I think she unquestionably must."

As this was, according to Lord Wynford, an "infamous case," the mother being of decidedly bad character, the House of Lords declined to support the doctrine of protracted gestation.

The English law, on which our own is founded, does not prescribe a precise time. There are, however, some decisions, which will show the ordinary course of adjudication.

In a case, during the eighteenth year of Richard II., Andrews, the husband, died of the plague. His wife, who was a lewd woman, was delivered of a child forty weeks and ten days after the death of the husband. Yet the child was adjudged legitimate and heir to Andrews, for *partus potest protrahi ten days ex accidente*.*

Henry Cook died on the 14th of January, 1780, and on the 9th of November, 1780, following, (forty-three weeks, except one day,) his widow was delivered of a son. A trial was held, and the jury found this posthumous child to be the heir-at-law.†

It is evident, however, from the remarks of Lord Eldon on the Gardner Peerage Case, (Le Marchant, p. 286,) that this case ought not to have been reported as a valid decision of an English court of law in favor of a period so protracted. "The verdict was a matter of indifference, except so far as it identified a necessary party."

Within a few years, the Gardner Peerage Case, and the following, are all that I can find mentioned in the English law books:—

"In the 'Observer,' Sunday newspaper, for September 9, 1827, a trial for seduction, *Anderton v. Whitaker*, is reported. The following evidence is stated to have been given by the female: 'It was on the 8th of January that I had the intimacy with the defendant, but never had any before or since.' The child was born on the 18th of October—284 days from the time of conception."‡

* There is a full report of the case of Andrews, in Croke Jac., p. 541. It is stated that "the husband's father abused her, and caused her to lie in the streets; and three physicians (two of them doctors of physic) made out that the child came in time convenient to be the child of the dead party; and that it is usual for a woman to go nine months and ten days, *i.e.* solar months at thirty days, and not lunar months. And that by reason of want of strength in the woman or child, or from ill usage, she might be a longer time, *viz.*, to the end of ten days or more. And the physicians further affirmed, that a perfect birth may be at seven months." This case is also reported under the title of *Alsop v. Bowtrell* or *Boutram*, and I rather think also under that of *Alson v. Stacey*.

† Brown's Chancery Cases, vol. iii. p. 349.

‡ Dr. Merriman, in *Medico-Chirurgical Transactions*, vol. xiii. p. 640.

In *Andrews v. Askey*, (Carrington and Payne's Reports, vol. viii. p. 7,) where the action was for seduction, the injured female deposed that the last connection was on the 1st of January, 1836, and that the child was born on the 20th of October, 1836. Sergeant Talfourd, in reply to this objection, remarked that "such things do happen sometimes, and oftener I believe in the first instance than at any subsequent time."

In *Luscombe v. Prettyjohn*, (Lancet, N. S., vol. xxvi. p. 729,) also for seduction, the female deposed that the first connection took place on the 13th of January, 1838, and the last on the 9th of February. The child was born on the 5th of December, and was full grown. The period of gestation, taking the latest period, was 42 weeks and 5 days. The verdict was in favor of the female.

And again, "In the case of *Catterall v. Catterall*, decided in the consistory court, in which the husband proceeded against the wife for a divorce on the ground of adultery, the main proof was that a child had been born *twelve* months after the husband had left his wife in New South Wales, for the purpose of proceeding to this country. Dr. Lushington, without entering into the question of protracted gestation, pronounced for the divorce." (London Med. Gazette, vol. xl. p. 159.)

I have already mentioned that, like the English, we have no law on this subject, and I can find scarcely any American cases that have been adjudicated. There is, however, one reported in the American Journal of Med. Sciences, occurring in Pennsylvania, in which the doctrine of protracted gestation is affirmed;* and I refer to the next section for another that has a bearing on this same subject.

* American Journal of Med. Sciences, N. S., vol. xii. p. 536. The case was tried before the Hon. Ellis Lewis, for whose legal learning and talents I have, in another part of this work, professed my great respect. The female was unmarried; the last connection was on the 23d of March, 1845, and the child was born on the 30th of January, 1846; an interval of 313 days. Judge Lewis, in his charge, advocated the possibility of protracted gestation from similar phenomena among vegetable productions, and the mammalia, and the

Messrs. Hargrave and Butler, in commenting on the early English cases, observe that "these precedents, so far from corroborating Lord Coke's limitation of the *ultimum tempus pariendi* (forty weeks) do, upon the whole, rather tend to show that it hath been the practice in our courts to consider forty weeks merely as the more *usual* time, and consequently not to decline exercising a discretion of allowing a longer space, where the opinion of physicians or the circumstances of the case have so required."* If, then, a contested case should ever arise in our courts, the opinion of medical men must be brought forward to decide it. What that opinion is, my readers have seen in the present and former sections. A majority of writers, at least, are believers in protracted gestation.

And now I may be permitted to inquire, whether it is intended to give this belief its full force and application? Is it intended that in a case tainted with the suspicion of adultery, nay, its certainty, a child shall be legitimated, although born eleven months after absence or sudden death? Will physicians, like Dr. Granville, in the Gardner Case, tell the court that they see nothing impossible in this? If so, and the knowledge of this opinion extends among the community, where will be the security of succession? Or, even waiving this, what must be its effects, when generally understood, on public morals?

Being in the minority, I am not authorized to propose any positive rules. I may, however, quote some remarks from believers in this doctrine, that deserve every consideration.

"At the same time, we must add, that the cases which to us appear to carry with them the fullest demonstration of their truth, are those in which the ordinary term was not exceeded by more than three or four weeks."†

deviations in arrival at maturity with the female. Thus considering the occurrence as not *impossible*, he left the credibility of the witness with the jury, and they found for her.

* Blackstone, however, intimates that a child born after forty weeks is illegitimate. He cites Britton for this; but the coeditors remark, that even this writer seems to extend it in some degree beyond forty weeks.

† Montgomery, in *Cyclopedia of Practical Medicine*, art. *Succession*.

“If the possibility or probability of its being prolonged is conceded, it does not follow that, in actual practice, judgment should go upon the *general probability* of the event, as a fact in physiology. On the contrary, since in the abstract more disorder would be occasioned in society by admitting the general principle as adequate to decide special cases than by rejecting it altogether, we conceive that if a definite period is not fixed by law, proof of the special probability or improbability should be required in each case.”*

If these opinions are acted upon, it may prove a happy circumstance that we have no laws on the subject. Juries will generally dispose justly in suspicious cases.

V. *Of some questions relating to paternity and filiation.*

These form a proper supplement to the present chapter, from their connection with its leading subject.

It might be supposed that common decency, as well as a proper respect for the opinions of mankind, would prevent those sudden marriages which sometimes take place immediately after the death of a former husband. There have, how-

* Edinburgh Medical and Surgical Journal, vol. xxvii. p. 114. The whole of the article from which this extract is taken is well worthy of an attentive perusal. It is a review of the evidence in the Gardner Case.

[In the nature of the case there can be no positive legal rule upon the question. It is governed by natural laws; and when the legitimacy of offspring is to be inquired into, it must be determined as a *question of fact*, and that is peculiarly the office of the jury. Blackstone, speaking of those who are to be considered legitimate children, is, therefore, not precise on this question of *time*. His definition is, “A legitimate child is he that is born in lawful wedlock, or within a *competent* time afterwards.” (1 Blackstone’s Com., 446.) The facts and circumstances of the particular case, with the opinion of medical men thereon, seem to be all that is required by law, and their sufficiency is a matter to be left to the jury.

The Revised Statutes of the State of New York have the following provisions as to *time* on this subject:—

§ 1. Every child *shall be deemed* a bastard, within the meaning of this title, who shall be begotten and born,—

1. Out of lawful matrimony.

2. While the husband of its mother continued absent out of this State for *one whole year* previous to such birth, separate from its mother, and leaving her during that time, continuing and residing in this State.]

ever, been females in all countries who have disregarded these restraints, and united themselves to a second partner before the "first brief week of mourning is expired." Besides the injury that such cases produce on the public manners, there is a difficulty which may arise in a legal view. *She may be delivered of a child before the expiration of ten months from the death of the first husband*, and the question then occurs as to the paternity of the infant.

The Romans endeavored to prevent this, by forbidding the widow to marry until after the expiration of ten months; and this term was prolonged by the emperors Gratian and Valentinian to twelve. This law has been imitated in the present French code, which also forbids the marriage before ten full months have elapsed since the dissolution of the previous one.*

But if these laws are transgressed, or if there be no laws (as in England and our own country) against such precipitate connections, whom shall we declare to be the father of the child? I will answer this by citing some cases, and then mention the laws in force.

About the period when the plague broke out in Naples, one Antoine, aged forty, married Jeronime, a young lady, and on the second day after, died of that fatal disease. Aniello, a relative and intimate friend of the widow, having obtained the necessary dispensation, married her immediately afterwards. She was delivered of a child two hundred and seventy-three days after the consummation of the marriage with Antoine, and two hundred and sixty-eight after her union with Aniello, being in the one case thirty-nine weeks, and in the other thirty-eight. The question, *who was the father of the child?* was put to Zacchias.

In order to solve the difficulty, he canvassed the condition of the two husbands, the mother, and the child. Antoine, he

* Foderé, vol. ii. p. 205. "The same constitution," says Blackstone, "was probably handed down to our early ancestors from the Romans, during their stay in this island, for we find it established under the Saxon and Danish governments. *Sit omnis vidua sine marito duodecim menses.*" (Blackstone, vol. i. p. 457.) It was the law before the conquest.

observes, was of a feeble constitution, and his marriage was a forced one, and contrary to the wishes of the female, who was attached to Aniello. The latter was strong and robust. The wife stated that the consummation of the first marriage was attended with a discharge of blood, which she attributed to menstruation, that in the interval of her widowhood it had slightly returned, but never after the second marriage. Now, from this, it might be supposed that as menstruation had not returned regularly since the first marriage, the pregnancy was caused by Antoine. Zacchias, however, supposes that the sanguineous discharge was the consequence of defloration, and that as she received the advances of her first husband with disgust, the suppression might arise from mental uneasiness. He attaches no importance to the fact, that if the child was the son of the second husband, the period of pregnancy would fall far short of nine months, and thinks it sufficiently counterbalanced by the youth of the parties. He therefore decided that it was the child of Aniello.*

In another case, a widow married shortly after the husband's death, and in the fifth month of her second marriage was delivered of a son, who survived. He was baptized by the name of the second husband, and when he arrived of age, claimed to be acknowledged as his son, and to be supported accordingly. The tribunal of the Rota, after taking the advice of physicians and lawyers on the subject, decided that he was not the offspring of the second marriage, on the ground that a five month's birth was not *viable*, or could not have survived.†

There are also some English cases on record. In the 18th of Richard II., a woman, immediately after the death of the first husband, took a second, and had issue born forty weeks and eleven days after the death of the first husband. It was held to be the issue of the second husband. In another instance, "Thecar marries a lewd woman, but she doth not cohabit with him, and is suspected of incontinency with Dun-

* Zacchias, Consilium, No. 73. See also No. 75, for a somewhat similar case.

† Zacchias, Decisiones Sacræ Rotæ Romanæ, No. 45.

comb. Thecar dies; Duncomb, within three weeks of his death, marries her, and two hundred and eighty-one days and sixteen hours after his death she is delivered of a son. Here it was agreed—1. If she had not married Duncomb, without question the issue should not be a bastard, but should be adjudged the son of Thecar. 2. No averment shall be received that Thecar did not cohabit with his wife. 3. Though it is possible that the son might be begotten after the husband's death, yet being a question of fact, it was tried by a jury, and the son was found to be the issue of Thecar.”*

The English law on this subject is thus explained by Blackstone and Coke: “If a man dies, and his widow soon after marries again, and a child is born within such a time as that by the course of nature it might have been the child of either husband, in this case he is said to be more than ordinarily legitimate, for he may, when he arrives at years of discretion, choose which of the fathers he pleases.”†

The following is the only American case that I have been able to find:—

Michael Redlion, by his last will and testament, bequeathed to his son Christian a considerable sum of money, the issues of which were to be paid to him during life, and at his death the principal to go to his children; but if he died without lawful issue, then the same was to go to the other children of the said Michael. Christian was married to Catharine Stout in the spring of 1825, and died on the 1st of November, 1825. His widow, Catharine, was married to Thomas Woolverton, the defendant, on the 16th of March, 1826, and on the 14th of September, 1826, the said Catharine had a son born, who is now living. The question for the jury was, who was the father, the first or the second husband? Christian Redlion

* Hargrave's notes, *ut antea*. See also Croke Jac., p. 686, for an account of the same case.

† Blackstone, vol. i. p. 456. Hargrave, as already quoted, and also in note 7 to fol. 8, *a*, intimates a doubt respecting the above doctrine, and suggests that one of the cases quoted would lead to the opinion, that “*the circumstances of the case, instead of the choice of the issue, should determine who is the father.*” This certainly would seem to be the most correct mode of adjudicating.

committed suicide, and from his death to the birth of the child was ten months and fourteen days, and from the marriage of Woolverton to the birth of the child, six months. The plaintiffs were brothers of the deceased, and entitled to the above principal in case of his dying without issue. The court charged the jury in favor of the plaintiffs and against the child, and the jury brought in a verdict accordingly.*

It has also been suggested that the resemblance of the child to the supposed father might aid in deciding these doubtful cases.† This, however, is a very uncertain source of reliance. We daily observe the most striking difference in physical traits between the parent and child, while individuals born in different quarters of the globe have been mistaken for each other. And even as to malformations, although some remarkable resemblances in this respect have been noticed between father and child, yet we should act unwisely in relying too much on them.‡ There is, however, a circumstance connected with this, which, when present, should certainly defeat the presumption that the husband or the paramour is the father of the child, and that is, "when the appearance of the child evidently proves that its father must have been of a different race from the husband or paramour, as when a mulatto is born of a white woman whose husband is also white, or of a black woman whose husband is a negro."§ It was on this

* John and Jacob Redlion v. Woolverton. Hazard's Register of Pennsylvania, vol. vii. p. 363, June 4, 1831.

† See Zacchias, vol. i. p. 146; and Valentini's Pandects, vol. i. p. 148. *De Similitudine Natorum cum Parentibus.*

‡ "Dr. Gregory, in his lectures, used to relate to his class, in order to convince them of the resemblance which so generally exists between parents and children, that having been once called to a distant part of Scotland, to visit a rich nobleman, he discovered, in the configuration of his nose, an exact resemblance to that of the Grand Chancellor of Scotland in the reign of Charles I., as represented in his portraits. On taking a walk through the village after dinner, the doctor recognized the same form of nose in several individuals among the country people; and the nobleman's steward, who accompanied him, informed him that all the persons he had seen were descended from the bastards of the Grand Chancellor." (Paris and Fonblanque's Medical Jurisprudence, vol. i. p. 220.)

§ Edinburgh Medical and Surgical Journal, vol. i. p. 335.

principle that a curious case was decided in New York some years since.

Lucy Williams, a mulatto woman, was delivered on the 23d of January, 1807, of a female bastard child, which became a public charge. On examination, according to our laws, she stated that Alexander Whistelo, a black man, was the father of it, and he was accordingly apprehended, for the purpose of obtaining from him the necessary indemnity for its expenses. Several physicians were summoned before the police justices, who gave it as their opinion that it was not his child, but the offspring of a white man. Dr. Mitchill, however, thought it possible, nay, probable, that Whistelo was the father. In consequence of this diversity of opinion, the case was brought up for trial before the mayor, recorder, and several aldermen, on the 18th of August, 1808. It appears in evidence that the color of the child was somewhat dark, but lighter than the generality of mulattoes, and that its hair was straight, and had none of the peculiarities of the negro race. Many of the most eminent members of the medical profession were examined, and they all, with the exception of Dr. Mitchill, declared that its appearance contradicted the idea that it was the child of a black man. Dr. Mitchill, for various reasons, (for which I refer to the account of the trial,) placed great faith in the oath of the female, and persisted in his belief of its paternity, although he allowed that its appearance was an anomaly. The mayor (the Hon. De Witt Clinton) and the court decided in favor of Whistelo.*

* See a pamphlet, entitled "The Commissioners of the Alms-house v. Alexander Whistelo, a black man; being a remarkable case of bastardy, tried and adjudged by the mayor, recorder, and several aldermen of the City of New York, etc.;" New York, 1808. The main scope of Dr. Mitchill's argument appears to have been, that as alteration of complexion has occasionally been noticed in the human subject (as of negroes turning partially white) and in animals, so this might be a parallel instance.

"Dr. Mitchill's opinion on Whistelo's case does not seem entitled to much greater estimation than that of a poor Irish woman, in a recent London police report, who ascribed the fact of her having brought forth a thick-lipped, woolly-headed urchin, to her having eaten some black potatoes during her pregnancy." (Dunglison's Physiology, vol. ii. p. 316.)

In a case before Chancellor Walworth, in 1835, a man had been arrested on the oath of a female, that he was the father of her bastard child, and being unable to give bail, consented to marry her. It was now urged, in order to annul the marriage contract, that the defendant had been delivered, at the time of making the oath, of a *negro* child, both parties in the suit being white persons. The chancellor said, that if she knew at the time when she charged the complainant that it was a black child, he would consider it in the light of a fraud, and annul the marriage, and directed the master to take testimony on the subject accordingly.*

It will not do, however, to extend this rule too positively with what may be called *mixed breeds*.

Parsons gives an account, in the *Philosophical Transactions*, of a black man married to an English woman, of whom the offspring was quite black. In a similar case, the child resembled the mother in fairness and features, and, indeed, the whole skin was white, except some spots on the thigh, which were as black as the father.

White, in his work on the *Gradation of Man*, mentions a negress who had twins by an Englishman; one was perfectly black, its hair short, woolly, and curled; the other was white, with hair resembling that of a European.

So, also, Dr. Winterbottom knew a family of six persons, one-half of which were almost as light-colored as mulattoes, while the other was jet-black. The father was a deep-black, the mother a mulatto.†

"The offspring of a black and white," says Lawrence, "may be either black or white, instead of being mixed; and in some rare cases it has been spotted."

* 5 Paige's Chancery Reports, p. 43. *Scott v. Shufeldt*.

† Edinburgh Encyclopedia, art. *Complexion*; Lawrence's Lectures, p. 259. See also Prichard's Researches into the Physical History of Mankind, 4th edition, vol. i. p. 366.

It may be well also to refer, in this place to the changes of color that take place in the new-born black infant. At birth, it sometimes cannot be distinguished from the white; its hair has not yet its peculiar make, and we can only notice the tendency to dark on some parts of the body. In a few days, however, the change commences on the countenance, and gradually

extends over the body. Cassan (on Superfoetation, p. 56) has well remarked that these successive changes may prove very useful, when a dead black child has been found, in deciding how long it has lived.

A curious case, bearing on these quotations, is mentioned in the *Western Journal of Medicine and Surgery*, vol. xi. p. 457.

A white woman, the wife of a planter in one of the Southern States, gave birth to a dark-colored child. Her husband died subsequently, and after remaining a widow four or five years, she again married. A doctor, it seems, charged her with incontinence, alleging that "she had given birth to a mulatto child." On this, an action for slander was brought, and nine medical witnesses gave testimony, and, as usual, differed.

The putative father was of German extraction, and of fair complexion; but the mother and two of his uncles were dark, like the child. And it was further proved that the family in Germany were descended from the Gipsies. During her pregnancy, the mother was repeatedly frightened by reports of "negro insurrections."

The chest and axilla of the boy were nearly white, while the abdomen was black; the change occurring abruptly, and being marked by a well-defined line. The glans penis is quite blue, while the other parts of the genital organs are of the complexion of the general surface. He has been growing gradually whiter since birth; his hair is nearly straight, a little curled, and his feet and ankles have none of the negro peculiarity.

It was proved that the character of the woman was not above suspicion.

The jury failed, on the first trial, to agree on a verdict.

Whatever doubts we may entertain relative to this case, certainly that of the child, in the same work, (p. 491,) by Dr. Stackhouse, is one where we may safely incline to the side of charity. The mother had a severe bilious affection at the conclusion of her pregnancy. The child, when born, was dark like a mulatto, but the hair was straight and fine, and the feet and ankles like the white race. It continued ill for three weeks, and then died from convulsions. On dissection, the liver was found unhealthy and the bowels stained yellow.

The suspicious circumstances were, that the eye was clear, and the urine natural, contradicting the idea of jaundice. And again, the back and abdomen were very dark.

CHAPTER X.

PRESUMPTION OF SURVIVORSHIP.

1. Of the survivorship of the mother or child, when both die during delivery. Cases that have been decided in Germany—in France—in the State of New York.
2. Of the presumption of survivorship of persons of different ages, destroyed by a common accident. Laws on this subject—Roman—Ancient French—Napoleon code—English. Cases that have occurred under each—General Stanwix—Taylor—Selwyn, Ball, etc. Propriety of having fixed laws on this subject. Difficulty in settling presumptions.

THIS interesting, as well as intricate question, has frequently been the subject of legal inquiry. It is agitated when two or more individuals have died within a very short period of each other, and no witnesses have been present to notice the exact instant of dissolution. Accidents also, such as fire, or a shipwreck, may destroy persons, and the disposition of their property will depend on ascertaining the survivorship of the one or the other. It is not to be supposed that medical science can solve the difficulty, but it may, in those instances where no aid can be derived from facts, assist in laying down certain principles. I shall endeavor to suggest some of these, while relating such cases as I have been enabled to obtain. They may serve as a guide for future investigations.*

The subject will be advantageously considered—1. As to the survivorship of the mother or child, when both die during delivery. 2. As to the survivorship of persons of different ages, destroyed by a common accident. This last may seem to include the first, but the distinction which I wish to make will be readily understood.

* The reader who is curious on this subject, will find a translation of an essay of Krugelstein, published some years since, in *Wilberg's Jahrbuch*, and translated by the late Horace B. Webster, in the *American Journal of Medical Sciences*, N. S., vol. xiii. It contains a number of continental cases, which at various times have excited attention.

I. *Of the presumption of survivorship of mother or child, when both die during delivery.*

The Imperial Chamber of Wetzlar were consulted, at the conclusion of the seventeenth century, concerning the case of a mother and child who, some years previous, had both died during delivery. There were no facts on which an opinion could be founded, and the naked question was presented. They decided, for *physical reasons*, that the mother had died first, and the commentator, in noticing this case, remarks that undoubtedly these physical reasons were—First, that the mother was exhausted by the labor; and second, that the infant would not have died until deprived, by the death of the mother, of its nourishment.*

It is questioned by medical jurists whether this decision is correct, and there are certainly many reasons to be assigned why the presumption should be against the child. Its life may be early endangered by a difficult or slow labor. There may be a pressure on the umbilical cord, or the placenta may be partially detached, and its death ensue during the consequent hemorrhage.

If the parturition be complicated with convulsions, the probability certainly is that the infant will first die. So, also, if it be very large, or if it be premature. The only exceptions which have been suggested in favor of the survivorship of the child, are the following: When the mother is delivered of twins, she may bring forth the first, and die before the second is born; and again, when she is laboring under an acute disease. We know that the offspring is sometimes healthy, although the mother sinks during the delivery.†

A due comparison of these arguments, I imagine, will lead

* Valentini's Pandects, vol. i. pp. 3 and 11. The statement given of this case, by Foderé, and after him by Capuron, is not correct. The chamber assign no reasons except "*causis physicis*," and it is the editor who explains them. There is evidently a mistake in the references to Valentini by Foderé, (vol. ii. p. 96;) and it is of such a nature, that one might be led to suspect that he had not minutely examined the Pandects.

† Foderé, vol. ii. p. 94; Capuron, pp. 135 to 148.

to the opinion that the presumption of survivorship is with the mother, for I will again mention that in these cases no person is supposed to have been present to witness the death of the parties, and such a length of time has also elapsed, that all examination, as well as inquiry into facts, are precluded.

A case that occurred to Pelletan may be mentioned in this place, although the consideration of it partly belongs to a previous chapter, (*on the viability of the infant.*)

A female at the eighth month of pregnancy died of a disease which the physicians styled anasarca complicated with scurvy, (*anasarque compliquée de scorbut.*) A surgeon immediately performed the Cæsarean operation, and extracted the child. In his *proces verbal*, he states that after tying the umbilical cord, and removing the mucus from its mouth, he observed pulsations at the region of the heart, and also found that it preserved a sufficient degree of warmth. It expired, however, he adds, three-quarters of an hour after the decease of its mother. Six witnesses were also present at the operation, four of whom stated that they applied their hands to the breast and felt the pulsation. The other two had not observed it.

Pelletan was desired to examine this testimony and to give an opinion whether the child had actually survived its mother. He remarks that there are certain causes of death which may destroy the mother while the life of the infant may be preserved; of this nature are sudden accidents, as drowning, a blow on the head, or violent hemorrhage. Foetal life is even compatible with some inflammatory complaints, but the probability is certainly against the surviving of the child, when the mother dies from a lingering and wasting disease. For this reason, and also because it does not appear to have arrived at the full time, he was of opinion that the child had died in the womb. As to the signs of life, even if they were fully substantial to have been present, he conceives them equivocal—the pulsations and heat were probably the remains of foetal existence. And if the surgeon was correct in believing that the heart beat for three-quarters of an hour, he was certainly blamable in not using means to promote respiration. But the probability is, that he was deceived.

For these reasons, Pelletan gave it as his opinion that the mother survived the child.*

I have been favored with a communication on this subject by the Hon. De Witt Clinton. Some years since, he informs me, a case embracing the succession to a large landed estate was tried in one of our courts under the following circumstances: The mother and child both died during delivery. If the latter was found to have survived, the father, by our law, was the heir; if the former, her relatives became entitled to the property. On the trial, it was proved that the child was born alive; and the question of the priority of death was then decided against the parties claiming as heirs of the mother.

II. *Of the presumption of survivorship of persons of different ages, destroyed by a common accident.*

It will readily be observed that if a father and son, or a husband and wife, perish in one common accident without witnesses, disputes may arise concerning the disposition of their property. Provision has accordingly been made in several codes for such cases. I shall give a concise sketch of these, interspersed with cases, to show the course of legal decisions on this curious subject.

The ROMAN LAW directs the order of succession when persons of different ages die in battle. If two individuals of this description fell at the same time, he who had not arrived at the age of puberty was to be deemed to have died first, but if a father, and a son arrived at his majority, lost their lives together, the son was considered to have survived the father. In process of time, this provision was extended to all cases where the precise period of death was unknown, and it was decreed, that in the case of a husband and wife, the former should be adjudged the survivor.†

The spirit of these laws guided the decisions of the conti-

* Pelletan, vol. i. pp. 322 to 341.

† Digest, lib. xxxiv. tit. 5, *de rebus dubiis*. "Cum pubere filio mater naufragii periit cum explorari non posset, uter prior extinctus sit, humanus est credere, filium diutius vixisse. Si mulier cum filio impubere naufragio periit, priorem filium necatum esse intelligitur," etc.

mental tribunals for many ages, and Zacchias, in his elaborate discussion on this question, cites cases from several jurisconsults which were settled according to the dicta of the civil code. The mother, in one instance, was shipwrecked with her young infant, and in another, she, with her two children, also young, was killed by lightning. In both these, the parent was deemed the survivor.*

Our author also, in his *Consilia*, relates two cases which deserve mention in this place.

A number of individuals perished by the fall of a building; and among these, a father aged sixty, and his son aged thirty. The bodies were found ten hours after the accident. That of the father was uninjured, but on the head of the son there was a severe wound. The heirs of each put forth their claims, and Zacchias was consulted by the judges on the case. After a long comparison between the strength and state of health of the parties, he comes to the conclusion that the son survived the father. Being aware, however, that the wound in question was supposed to have accelerated the death of the former, he endeavors to avoid this difficulty, by suggesting that it was not necessarily mortal, nor of a nature to destroy his strength immediately; while the suffocation was a so much more urgent cause of death, that the father, from his valetudinarian state, and his advanced age, would first be destroyed by it.†

The propriety of this opinion is controverted by Foderé, and with considerable show of justice; for certainly a wound of the head, and of so severe a nature, may safely be considered the most sudden destroyer of life under the above circumstances.‡

In another instance, a man and his family had eaten very copiously of poisonous mushrooms. They were all taken ill, and the domestics were sent to obtain assistance. Before they could return, the husband and wife had both expired. This couple, two years previous, had made an agreement, that whoever survived should possess the sum of two thousand

* Zacchias, vol. i. pp. 440, 441.

† Consilium, No. 51.

‡ Foderé, vol. ii. pp. 320, 321.

crowns, and on the disposition of this a dispute necessarily arose. Zacchias, when consulted, gave his opinion, that the husband had survived the wife. His reasons were the following: The husband, though sixty years of age, was robust and healthy, and, from the deposition of the servants, appears to have eaten but few of the mushrooms. The wife, on the contrary, although only forty, was asthmatic, and subject to affections of the stomach. She had eaten largely of the mushrooms, and added to these, other indigestible food. A poison, therefore, which acts violently on the organs of respiration, would soonest destroy one already diseased in those parts.*

Foderé objects to this decision, that the opinion of the poison acting on the organs of respiration is altogether hypothetical, and it probably is so, but certainly the general course of reasoning appears correct.

THE ANCIENT FRENCH LAW, in its adjudications, generally followed the Roman. In 1629, a mother, with her daughter, aged four years, was drowned in the Loire. The parliament of Paris, on appeal, decided that the youngest had died first. Some years after, however, an opposite decision was pronounced by the same body. The mother (*Bobie*) and her two children, one aged twenty-two months, and the other eight years, were murdered secretly in the night. The husband claimed the property of his wife on the ground that the children had survived, and the parliament adjudged it to him.† The discrepancy in this case is very naturally explained by Foderé. Murderers would first destroy those whom they most dreaded, and afterwards proceed to the completion of their intended enormities.

Ricard, a celebrated advocate of the seventeenth century, has preserved a very curious case on this subject.

In 1658, a father and a son perished in the famous battle of Dunes; and at noon the same day the daughter and sister became a nun, whereby she was dead in law. The battle commenced at that very hour. It was inquired which of these

* Consilium, No. 85.

† *Causes Célèbres*, quoted by Foderé, vol. ii. p. 218.

three survived, and it was decided that the nun died first. Her vows being voluntary, were consummated in a moment; whereas the death of the father and brother being violent, there was a possibility of their living after receiving their wounds. It was then necessary to decide between them, and after some disputation, it was agreed to follow the Roman law, and declare that the son, being arrived at the age of puberty, survived the father.*

In 1751, a merchant, aged fifty-eight, with his wife, aged fifty, and his daughter of twenty-seven years, was drowned, with many others, in endeavoring to cross the Seine in a small vessel. The question of survivorship was raised by the relatives, and an opinion was given on the case by the celebrated Lorry.† He observes that three causes probably conspired to accelerate the death of these individuals—fright, excessive coldness of the water, and any disease that might be present. Throughout the whole of his argument, he appears to proceed on the supposition that the younger female was menstruating, and hence, that the cold water, by checking it, would hasten her death. But this is not stated in any part of the case, and it certainly is very questionable whether, as he would seem to insinuate, that state of fullness of the system which menstruating females have, would accelerate the suffocation produced by drowning. If his argument means anything, it is certainly directed to this point; and we have then to compare the probable state of a female of fifty who is beyond the menstruating period, and another laboring under that function. Certainly it will not counterbalance the difference in age and strength. He, however, gave it as his opinion that the daughter died first. But the parliament of Paris, by a decree of the 7th of September, 1752, admitted presumption of survivorship to her, and ordered a disposition of the property accordingly.‡

It thus appears, that for a length of time, the provisions of

* Foderé, vol. ii. p. 220; Smith, p. 382.

† This opinion, or "*Consultation de Médecine*," is published at full length in Mahon, vol. iii. p. 152. It is signed by Doctors Payen and Lorry, but was written by the latter.

‡ Foderé, vol. ii. pp. 220, 316.

the Roman law were followed in France. But a curious distinction was made. The legal tribunals regulated the descent of property by them, but would not apply them to cases where legacies were bequeathed, and for this reason: It is necessary, say they, that a man should have heirs, but it is not necessary that he should have legatees; and accordingly, when testator and legatee died at the same time, the property passed to the heirs. The lieutenant of a vessel bequeathed the sum of two thousand francs to his captain, by a will which he made before going to sea. Both captain and lieutenant were lost in the same vessel, and when a law case was raised as to the legacy, the property was adjudicated in the manner above stated.*

The PRESENT FRENCH LAW on this subject is contained in the following sections of the civil or Napoleon code:—

“If several persons, naturally heirs of each other, perish by the same event, without the possibility of knowing which died first, the presumption as to survivorship shall be determined by the circumstances of the case, and in default thereof, by strength of age and sex.

“If those who perished together were under fifteen years, the oldest shall be presumed the survivor.

“If they were all above sixty years, the youngest shall be presumed the survivor.

“If some were under fifteen, and others above sixty, the former shall be presumed the survivors.

“If those who have perished together had completed the age of fifteen, and were under sixty, the male shall be presumed the survivor, where ages are equal, or the difference does not exceed one year.

“If they were of the same sex, that presumption shall be admitted which opens the succession in the order of nature—of course the younger shall be considered to have survived the elder.”†

Although these provisions are in the main founded on cor-

* Foderé, vol. ii. p. 221.

† Civil Code, sections 720, 721, 722—quoted by Foderé, vol. ii. p. 222, and Smith, p. 379.

rect physiological principles, yet there are some objections of weight pointed out by Foderé. The clause that adjudges the survivorship to those under fifteen, when they and persons above sixty perish together, is certainly imperfect, since it may include infants of one, two, or three years. These certainly would expire the soonest. And again, no provision is made for the case when persons under fifteen and under sixty perish together, although this may possibly be met by the last section.

The ENGLISH LAW appears to have no provisions on the subject, except so far as the civil law is incorporated with it. There are, however, some cases which deserve mention.*

In 1766, General Stanwix and his daughter set sail in the same vessel from Ireland for England. They were shipwrecked, and not a single person on board was saved. The representative of the father to his personal estate was his nephew, and the representative of the daughter was her maternal uncle. These parties brought the case into chancery. On behalf of him whom the general's survivorship would have benefited, it was argued that the ship being lost in tempestuous weather, it was more than probable that the general was upon deck, and that the daughter was down in the cabin, (as is almost always the case with ladies in these situations,) and of course subject to more early loss of life than her father, who, as a man of arms and courage, was, it was asserted, more able and more likely to struggle with death than a woman, and in which he might probably have been assisted by the broken masts and other parts of the rigging.

On the other side, it was contended that the general was old, and consequently feeble, and by no means strong enough to resist the shocks of such a terrible attack; that the daughter

* The most ancient case, I presume, in English jurisprudence, is that of *Broughton v. Randall*. According to Croke, (Elizabeth, 502,) the father and son were joint tenants; they were both hanged in one cart, but the son was supposed to have survived the father, since, as was deposed by witnesses, he appeared to struggle longest. The jury (in Wales) gave a verdict of favor of dower to the son's wife. There is a shade of doubt, or at least a discrepancy in this case, as, according to Noy, the *father* moved his feet after the death of his son. (Paris' Medical Jurisprudence, vol. i. p. 390.)

was of a hale constitution, and though of the weaker sex, yet being younger than her father, was proportionably stronger, and from the circumstance of youth, more unwilling to part with life, and that the probability of survivorship was therefore infinitely in favor of the daughter.

A second wife of General Stanwix also perished with him, and her representative brought forward a separate claim to the disputed property.

The court, however, finding the arguments on all sides equally solid and ingenious, waived giving any decision, and advised a compromise, to which the several claimants agreed.*

The following case was tried at the Prerogative Court, Doctors' Commons, in 1815:—

Job Taylor, quartermaster-sergeant in the Royal Artillery, had made a will, in which he appointed his wife, Lucy Taylor, sole executrix and sole residuary legatee. Having been for some time in Portugal on foreign service, he was returning home with her, on board the *Queen Transport*, when the vessel, in Falmouth harbor, struck upon a rock, in consequence of the violence of the weather, and sunk almost immediately afterwards. Nearly three hundred persons on board perished, and among them Taylor and his wife. Taylor died possessed of property to the amount of £4000, and a bill in chancery was filed by the next of kin of the wife against those of the husband, to ascertain who was entitled to this property; but the proceedings were at a stand for the want of a personal representative of the husband. Both parties, therefore, applied to

* Fearne's posthumous works, pages 38 and 39. This case appears to have attracted the attention of Mr. Fearne, and he accordingly prepared arguments for the purpose of seeing what could be advanced on both sides, with some appearance of reason; and after his death, they were published in the above collection. The scope of the argument in favor of the representative of the daughter is, first, to overthrow the probability that they both died at the same instant, and next, to strengthen the rule of the civil law, that the child shall be presumed to have survived the parent. The argument in favor of the representative of the father is aimed against the propriety of allowing any weight to presumption, and it urges the known fact, that the father died possessed. This, it is conceived, should destroy a claim founded on the uncertain, unknown possession of a niece. (See pages 35 to 72.) Both these arguments deserve an attentive perusal. See also vol. i. Blackstone's Reports, p. 640, *Rex v. Dr. Hay*.

the court for letters of administration generally, or that the court would suspend granting any to either party during the dependence of the chancery suit, and in the mean time grant a limited administration. This latter prayer was, however, abandoned, on understanding that the court could not grant a limited administration where a general one might be granted and was applied for; and the present question therefore was, to whom the general administration should be granted—whether the next of kin to the husband as dying intestate, his wife not having survived so as to become entitled under his will, or the representatives of his wife, as his residuary legatee, she having survived so as to become entitled under that character.

It appeared from the affidavits exhibited on both sides, that at the time the accident happened, Lucy Taylor was below in the cabin and her husband on deck. The water was rushing in fast, and he offered large sums to any one who would go below and save her, but finding none would venture, he descended himself, and the vessel immediately afterwards went to pieces. The bodies of Taylor and his wife were found close together, and it further appeared that she was a woman of a very robust constitution, and in the habit of enduring great fatigue by the management of the officers' mess, as well as that of a great many of the soldiers, while he was rather sickly, and had been latterly much afflicted with an asthma.

It was contended on the part of the husband's next of kin, that by the principles of the Roman civil law, which had been adopted into the law of the country, and were in fact the only principles governing a case of this kind, it was laid down, that where two persons perished together in a common calamity, and it became a question which of the two was the survivor, the presumption of law should always be in favor of the person possessing the more robust constitution and greater strength, as being thereby the better fitted to struggle with the difficulties of his situation, and resist for a longer time the operation of death. Thus, when the father and the son shall perish together, the presumption of the survivorship is in favor of the son, if above the age of puberty, but of the

father, if under; the same, as to a mother and daughter; and as to husband and wife, the presumption is in favor of the husband. This, however, like all other legal presumptions, was liable to be repelled by evidence to the contrary, but in this case it was contended, from the situation of the wife at the time the accident happened, that it was most probable she had perished before her husband descended to her rescue. Upon both grounds, therefore, both of principle and of fact, the court must conclude that the husband was the survivor, and accordingly grant the administration to his next of kin.

On the part of the wife's next of kin, it was contended that the presumption of the law alluded to, was only applicable to cases where parties perish together in such a manner as to preclude the possibility of obtaining any evidence as to which of them was the survivor. Where, however, evidence as to that fact was produced, as in the present case, the case must be decided upon that evidence only. Here it appeared the parties had perished by the same accident, and their bodies were afterwards found together; and that the common course of nature had in this instance been inverted, by the wife being the strongest and most robust of the two. The court must, therefore, necessarily conclude that she was the survivor, and accordingly grant the administration of her husband's effects to her representatives.

Sir John Nicoll agreed to the doctrine that had been laid down, of the presumption being in favor of the husband; but it was a necessary preliminary question, upon whom the burden of proof rested. The administration to the husband being the point in issue, his next of kin had *prima facie* the first right to it. It was, therefore, incumbent upon the representatives of the wife, in this case, to prove her survivorship, as the party in whom the property vested, and from whom in consequence they derived their claim to it. He then entered into an explanation of the facts in evidence, and was of opinion that they were insufficient to repel the presumption of the husband's having survived the wife, which the court was bound to assume, from the circumstance of their having been overwhelmed by one common calamity, and having perished

together; observing, in particular, that though the wife might be very active and laborious in her domestic duties, yet the natural timidity of her sex might prevent exertion in the moment of danger; while the husband, on the other hand, though laboring under the bodily affliction of an asthma, might still retain his manly firmness in resisting impending destruction, particularly as, from his situation in life, he must have often faced death in various shapes. He was, therefore, in no degree satisfied by the proofs in the cause, that the wife survived the husband, and should decree the administration to his next of kin. In thus deciding the law, however, he did not mean to affirm positively which of the two was the survivor, but merely that there was not sufficient proof that it was the wife, to repel the presumption of law that it was the husband. The administration was accordingly granted to the husband's next of kin.*

A later case is on record, viz., that of *Mason v. Mason*, which came before Sir William Grant, the Master of the Rolls, in March, 1816. The father, a middle-aged man, embarked with his son on board a vessel in India, on a voyage to England. The ship was lost, and all on board perished. In favor of the son, the civil law and the Napoleon code were cited; but it was replied, that as the father's will bequeathed certain property to each of his children, "who should be living at the time of his death," it required positive proof, and not presumption. The opposite party cannot prove that the son survived. The master of the rolls appears to have been of opinion against the son, but he finally sent to a jury to try whether Francis Mason was living at the death of the testator.† The result of this I have not been able to find.

* Taylor and others *v.* Diplock, (2 Phillimore's Reports, 261.) In a note to this case, that of *Wright v. Sarmuda*, or *Wright v. Netherwood*, (1793,) is also given from MS. notes. The question of survivorship, however, is not so much brought in, (the husband, the second wife, and the children by both wives, all were lost at sea,) as that of the revocation of the will. The following remark of the judge (Sir William Wynne) may, however, be quoted: "I desired the priority of the death of the parties to be considered. I always thought it the most rational presumption that all died together, and that none could transmit rights to another."

† Merivale's Chancery Reports, vol. i. p. 308.

To these I will only add the following: Mr. Selwyn, of the war-office, and his lady, perished in the disastrous accident to the Rothsay Castle steamer, (1831.) By his will, he appointed Mrs. Selwyn his executrix; and in case she should die in his lifetime, other executors were appointed. The circumstances of their death raised the question, whether the contingency provided for in the will had occurred, and whether the wife's representatives, or the executors named in the event of her prior death, were to take administration.

The case came before the English prerogative court, November 7, 1831. The court said, that in other similar cases it had been held, as both parties might be supposed to have perished together, that the wife could not have survived the husband; but in this case, the words were "in case she should die in my lifetime." The presumption was, that the husband, as the strongest of the two, survived the longest: and as it was the clear intention of the testator, that the representatives of the wife should not take the administration, and as there was no attempt on the part of those representatives to establish an intestacy, the court decreed probate to the executors.*

* London Atlas newspaper. This case (*in re Selwyn*) is reported in 3 Haggard's Ecclesiastical Reports, p. 748. See also, *Colvin v. King's Proctor*, 1 Haggard, p. 92.

The following are later English cases:—

Case of Robert Murray, deceased.—Robert Murray, with his wife and only child, proceeded on a voyage from Dublin to Quebec, on board the bark Emerald, of London, in October, 1837; on the twenty-fifth, during a severe gale, at eleven o'clock at night, the vessel struck the land. When this happened, Murray was on deck, and his wife and child were in the cabin. Murray went below, and shortly after the vessel again struck the land and went to pieces, and the deceased, his wife and child, were drowned.

The above circumstances were set forth in an affidavit by the mate, who survived. The deceased left a will, in which he had bequeathed the whole of his property to his wife.

The court, on motion, granted administration, with the will annexed, to the next of kin of the husband, as dead, a widower; there being nothing to show that the wife survived, the next of kin of the wife consenting.

Satterthwaite against Powell.—Major Armett, of the British army, his wife and four children, sailed in January, 1819, on a voyage from Bristol to Cork. The vessel was lost in the channel, and every one on board perished.

Previous to marriage, there had been a settlement on the wife, for her

The following is the only American case which I can find reported:—

Hugh Swinton Ball, with his wife and adopted daughter, were lost on board the steamer *Pulaski*, on the 14th June, 1838. By his will, he bequeathed to his wife his household furniture, servants, etc., and in case he died without children, he gave her all the property received by him in marriage, and other legacies out of his own estate. A claim was made by her heirs, on the ground that she had survived her husband.

Chancellor Johnston heard the cause at Charleston, in January, 1839. In his opinion he first reviews the cases that have already come before various courts, and remarks that in all these “the English and American courts have hitherto carefully avoided the adoption of any rule of decision. The cases have gone off by compromise, or were decided upon a

separate use, and, after her death, for the husband, in case he should survive her. Subsequent to this she had the power to devise it among her children. She died intestate, and letters of administration were granted to Mary Satterthwaite, widow, as her mother, and next of kin. She was now dead, and had left part of the goods of the deceased unadministered, and the question was, whether administration of the unadministered effects of Ann Arnett should be granted to her next of kin, or to the representatives of the husband.

The counsel for the latter contended that the ordinary presumption of law should be followed, viz., that where the husband and wife perished by the same accident, the former shall be deemed to have survived. “Here the property was the wife’s, and there being nothing to show that she survived, and the presumption being that the husband would live the longest, the administration should go to his representative.”

The court (Sir Herbert Jenner) said: “The principle had been frequently acted upon, that where a party dies possessed of property, the right to that property passes to his next of kin, unless it be shown to have passed to another by survivorship. Here the next of kin to the husband claims the property which was vested in his wife; that claim must be made out; it must be shown that the husband survived. The property remains where it is found to be vested, unless there be evidence to show that it has been divested.”

“The parties in this case must be presumed to have died at the same time, and there being nothing to show that the husband survived his wife, the administration must pass to the next of kin.” (*Curteis’ Ecclesiastical Reports*, vol. i.)

rule adapted to the nature of the question before the court, and not to the question of right as transmitted by survivorship;" or, in the words of Chancellor Kent, "the English law has hitherto waived the question." In proof of this, he adduces the well-known cases of *Gen. Stanwix and Selwyn*, of *Taylor v. Diplock*, and *Wright v. Sarmuda*. Still, Chancellor Johnston is not prepared to abandon, as delusive, all efforts to attain rules capable of deciding the fact of survivorship, even in instances deemed conjectural. But if there be any evidence whatever, even though it be but a shadow, it must govern in the decision of the fact. The *code civil* is indeed grounded on this. It provides that if several persons, entitled to inherit from each other, happen to perish, without the possibility of knowing which died first, the presumption of survivorship is determined *by the circumstances of the fact*, and it is only in default of these that rules are enacted applicable to cases of a more conjectural character.

"In what I have said hitherto I have contemplated a case where the cause of death consisted of one disaster, whether of more rapid or of slower operation. But where the danger consisted of a series of successive operations, separated from each other, and each capable of inflicting death upon the victims according to the degree of exposure to it, there is certainly more scope for testimony and for inference, from circumstances, than in other cases."

The facts are thus stated by the chancellor:—

"The *Pulaski* left Savannah on the 13th of June, 1838, and arrived at Charleston that evening. The next morning Mr. and Mrs. Ball, their adopted daughter and a servant, went on board, and she departed north on her course, until about 11 o'clock of that night, when, most of the passengers having retired to their berths, the starboard boiler exploded. By the explosion an extensive breach was made on the starboard side of the vessel. Her main deck was blown off, thus destroying the communication between the forward and after part of the steamer. The forward part of the upper deck—called the hurricane deck, in contradistinction to the after part, which is called the promenade deck—was blown off, carrying with it

the wheel-house, in which the commander of the boat, Capt. Dubois, was sleeping at the time; the gentlemen's forward cabin was much torn, its floor ripped up, and its bulk-head driven in, and Major Twiggs, whose berth was there, gives us reason to suppose that many perished in that part of the vessel by the explosion. The gentlemen's after cabin—which was under the main deck, and immediately beneath the ladies' cabin, which was on that deck—was also injured. Some part of the floor was ripped up, the bulk-head partly driven in, and the stairs communicating with the deck more or less shattered. The vessel was careened to the larboard, and as she dipped, began to fill with water. In a very short time the hold was filled, and the water gained to the level of the floor of the gentlemen's cabins. It rose higher with great rapidity, the vessel settled to the centre, where the breach was, and all hope that she could hold together was abandoned. She parted amidships, and the forward and after parts pitched into the water toward the centre, at an angle of nearly thirty degrees. The gentlemen's after cabin was now entirely filled, and the forward cabin was certainly in as bad a condition. There were some persons on the forward part of the vessel, nearly all of whom speedily perished, but the greater number were in the after part, including one or two who had passed by swimming from the forward to the after part. Of those on the after part, as many as could climbed to the promenade deck; but there were many, mostly ladies, among whom was Mrs. Ball, who remained on the main deck. These, as that deck sunk deeper and deeper, retreated along the gangways, by the ladies' cabin toward the stern. The promenade deck, by the action of the waves, was burst from the top of the boat and was submerged with all that were on it. Whether the stern of the boat was submerged at or after this time, is uncertain. Some of the witnesses think it was, even before the promenade deck, others, that it was not submerged at all. All these events had taken place, according to most of the witnesses, in about from forty to fifty minutes; according to others, in less time.

“Some few escaped in the boats, others on parts of the

wreck, and others on rafts constructed by them as they could. Of Mrs. Ball nothing is known, after the submerging of the promenade deck, nor for some time before. Before that event, her cries were heard by one witness, who had gained the promenade deck, as they proceeded from the place she still occupied on the deck below. No witness speaks of her afterwards.

“ Within a few minutes after the explosion, according to one witness who knew her, she came out of the ladies’ cabin and began to call upon her husband. The scene was one of terror, as may be supposed; and although a crowd was instantly gathered at that part of the vessel, there was not much noise. The surrounding horrors seem to have subdued the sufferers, and in mute astonishment they contemplated the fate that awaited them. Even the wheels had stopped. Nothing but the sound of the waters, which were somewhat disturbed, and the hasty exclamations of friends, as they sought each other out, and the noise occasioned by such preparations as the more active and prudent felt themselves called upon to make for themselves and others under their charge, were heard. But the voice of Mrs. Ball was heard above all others, calling upon her husband. She ran forward to the chasm caused by the explosion, retraced her steps, and continued to traverse the starboard gangway in search of him, uttering his name in tones so elevated by her agony, that they reached most parts of the vessel, and seem to have made an indelible impression upon all who heard them. Her cry, according to one witness, was a cry of bitter despair and anxious inquiry, and, according to all, it was lifted in shrill tones, carrying an irresistible appeal to all hearts.

“ Mr. Ball was neither seen nor heard. Mrs. Ball was heard and seen by many, but no response was heard to her cries, nor was any one seen to approach her for her protection or consolation. Two witnesses, who knew Mrs. Ball, saw *her*, but did not see *him*. One of them passed and re-passed her, in a hurried manner to be sure, but did not discover him.

“ He was neither seen nor heard after the explosion, unless

he was the person referred to by two witnesses, who stated the following circumstance: Very shortly after the explosion, a boat was let down on the starboard side of the steamer, into which some persons descended. As the boat was lying below, a gentleman came to that side of the deck, and throwing a coat into the boat, called to those in it to hold fast a moment, and instantly disappeared. He never reappeared, but the next day the coat was found to be a black dress coat of a large size, (such was the size of Mr. Ball,) and in one of the pockets was discovered a shirt collar, on which was written the name of Ball, with some initials which the witnesses have forgotten.

“Now these are the circumstances of the case. It is not the case of an unknown calamity, nor of one withdrawn from observation, nor is it a case where the calamity was of instantaneous operation. It is a case for testimony, and to be decided on testimony.”

Chancellor Johnston proceeds to say, that as the right on the part of Mrs. Ball was derivative, the burden is on the plaintiffs to prove that she was the survivor. But although bound to prove this, it does not follow that they are to prove it to demonstration. We must take the best evidence that the case affords.

Although unwilling to rest on the fact that Mrs. Ball was the last person seen, yet he inclines to the opinion, that in cases of persons lost by a common accident this should be the ground of decision. He prefers, in the present instance, “to put the case upon the ground of probability arising from the evidence, upon a belief engendered by a combination of circumstances, and upon the superiority of positive proof over conjecture or even probability.

“The explosion produced its most fatal effects in the gentlemen’s forward cabin, and that was the first part of the vessel which sunk. The after cabin was also much injured. From the forward cabin many persons never escaped. From the after cabin, so far as we know from the evidence, all did escape except Judge Cameron, an infirm old man. But from the description given of its condition, it is possible that some others may have been detained, either from being hurt or otherwise, until the cabin filled.

"It is *certain* that Mrs. Ball escaped the explosion. Is it certain that Mr. Ball did? Mr. Ball engaged a berth in the after cabin. The probability is that he got it, but this is far from certain. The boat came with many passengers from Savannah, which may have occasioned Mr. Ball to be displaced and transferred forward. I think, however, it is not probable he was so transferred, because, by an arrangement between the agents in Savannah and at Charleston, they were entitled to let berths, in alternate order, throughout the boat, and we know that some of the passengers who came from Savannah had not the advantage of preoccupying the after cabin, and that some of the Charleston passengers were let into the cabin; Mr. Ball, therefore, was probably in that cabin. But there is a probability that he was in the forward cabin, and if so, in the greatest danger from the explosion. Mrs. Ball was cleared from that danger *certainly*, Mr. Ball only *probably*. Supposing that he was in the after cabin, still there are chances of his destruction there, from which, we know, Mrs. Ball was totally free on the deck. We know Mrs. Ball was there. *This is certain.* Is it certain that Mr. Ball had hitherto escaped, and was the person who threw the coat into the boat? It may be that he was the man. I think it hardly probable. I should have thought that he was the man if he had been seen at any time near his wife, or had answered to her heart-rending calls. But it is more probable that some one else in the hurry of the moment may have mistaken Mr. Ball's coat for his own, and thrown it into the boat, than that an affectionate husband and brave man, as Mr. Ball is proved to have been, should have heard such appeals as were made to him by his wife, and should at such a time have failed in his duty to her.

"We have indubitable evidence that she had so far escaped; the same evidence, with a moral force which cannot be resisted, convinces us that he must have already perished, or he would have been at her side. I have, from all these considerations, formed the opinion that Mrs. Ball survived her husband."

On appeal, (February, 1840,) the above decision was confirmed.

The reporter gives the argument of Col. Hunt, counsel for the appellants. The burden of this is, that the exact time of the death of Mrs. Ball is known. She was, from her terror and feebleness, undoubtedly drowned when the decks sank. Mr. Ball may have survived for some time after. The great error (he objects) on the other side, is the resort to negative testimony. He was not seen, he was not heard, therefore he was dead, although no cause of death is traced to him. There is no proof that he was killed by the explosion. He was a good swimmer, he may have caught a fragment of the wreck, and survived a long time. As to Mrs. Ball, this was impossible.

Col. Hunt considers it certain that Mr. Ball had a berth in the after cabin, from which all escaped except Judge Cameron. He is also decided in opinion that it was Mr. Ball who threw his coat into the boat; nor because he was not with his wife, does it prove that he was dead? He might have been seeking some means to save her; he might have been looking for his adopted daughter.

“There is no legal proof that Mr. Ball was dead at the time the witnesses heard the cries of his wife. No human testimony can fix the time of his death, while that of his wife is rendered almost certain. And thus, so far from the complainants having established their survivorship, the weight of evidence proves that the husband survived. It is enough for us that the fact is left unsettled. The burden of proof was upon the complainants, and they have failed to establish their position.”*

In reviewing these cases, it may probably appear to some that physical principles will never be sufficient to decide them with any degree of probability. This, indeed, is the opinion of some medical jurists, as Belloc, Orfila, and Duncan.† Others again, and in particular Zacchias, have laid down rules for judging in all the various kinds of accidents that may

* Pell and another v. Ball's executors, (Cheves' South Carolina Chancery Cases, vol. i.)

† Belloc, p. 161; Edinburgh Medical and Surgical Journal, vol. i. p. 334; Orfila's Leçons, vol. i. p. 535.

occur. Thus in those dead from hunger, the young should be supposed to have first perished, then infants, and lastly old men; and as to sex, women probably survive. In cases of drowning, a dissection and examination of the organs immediately acted upon, may lead to correct opinions; while in those found dead from noxious exhalations, we should examine the relative situation of the bodies to the noxious air, and the state of thoracic capacity. In all cases, the state of health should, if possible, be ascertained, and apoplectic habits should always be deemed to have been the earliest sufferers.*

Dr. Beatty has lately considered these *probabilities* more in detail, in a valuable essay in the Cyclopaedia of Practical Medicine.† As to *age*, he concedes that, in general, very young persons, and those far advanced in aged, sink more readily than adults and those in the middle stage of life. I have been, however, struck with the difficulty of forming positive opinions even on this, from an incident related by Burekhardt. In giving an account of a caravan coming in want of water in the Nubian desert, he says that “the youngest slaves bore the thirst better than the rest; and that while the grown-up boys all died, the children reached Egypt in safety.”‡ Dr. Beatty agrees, that under similar circumstances, the *male* will survive longer than the female, but suggests several qualifying circumstances which should enter into the estimate. The greater liability of the weaker sex to fainting, and their ability to preserve life longer, without marked arterial circulation, may, in many cases, tend to their preservation. As to *habit* and variety of constitution, all such that have a tendency to affections of the head and lungs, should be deemed the first victims, in case the causes of death are of a description to affect these. And the *moral condition* must not be overlooked. The brave survive the fearful and the nervous.

If we turn to the causes by means of which a number of

* Zacchias, lib. v. tit. 2, quest. 12. He also adds, that when persons are destroyed in a fire, those who are suffocated expire before those who are burnt to death. (See Foderé, vol. ii. pp. 228 to 232; Smith, p. 380.)

† Vol. iv. p. 97, art. *Survivorship*.

‡ Library of Entertaining Knowledge. The Menageries, vol. i. p. 296.

persons may have been simultaneously destroyed, we shall find our data far from being numerous or settled. Dr. Beatty observes, that if a positively deleterious gas, such as sulphuretted hydrogen or carbonic acid gas, has been the agent of suffocation, it may be presumed that death was rapid in all, and occurred at nearly the same time. A late writer, however, affirms, that from numerous observations, made for a long period, on persons dead from asphyxia, (and the context shows that he principally means carbonic acid gas,) the *female adult* survives longer than the *male adult*. The strongest individuals die first.*

From the experiments of Dr. Edwards, it would seem that if death be caused merely by atmospheric air becoming deficient in oxygen, the adult will perish sooner than infants or very young persons. The dreadful mortality in the Black Hole at Calcutta shows how rapidly this cause acts on the male in the vigor of life.

Heat and *cold* operate differently on the same description of persons. The male and the adult have repeatedly sunk under their sufferings in traversing the deserts of Egypt and Syria, while the young have escaped. Cold, on the contrary, will earliest destroy the infant and the young.

In cases of two or more persons drowned at the same time, Devergie remarks that those who bear the marks of apoplexy

* Sardaillon, in *Annales d'Hygiène*, vol. x. p. 173. In further confirmation of this, Devergie makes the following statement: According to official reports, 360 cases of asphyxia from carbonic acid have occurred in Paris between 1824 and 1835. Of these, 19 were double cases, (male and female affected at the same time,) and three only recovered. These three were females. Out of 73 females, 18 were saved, while out of 83 males, only 19 recovered, a proportion in favor of females of four to five. (Devergie, vol. ii. p. 923.) In conformity to this, is a case in the *Transylvania Journal*, vol. x. p. 697, on the authority of Prof. Dudley. It is that of a man and his wife suffocated in a close and small room by the gas from live coals. At 6 A.M. the man was found dead, *rigid and contracted*; the woman breathed and was recovered. There is a very difficult case cited by Krugelstein—of a husband and wife of the same age, dead from the fumes of charcoal, in which Metzger and Pyl agree that the female died first, because there were no marks of suffocation (swollen and congested lungs, with increased quantity of serum) present with her, as there was with the husband.

should be considered as having died the earliest; and again, those who die from syncope survive longer than when asphyxia is the cause.* All wounds and injuries are to be supposed to have accelerated the fatal termination.

Such are some of the inferences drawn from positive facts, and from physiological researches. If they are deemed too few or too contradictory, it still remains to determine whether we should not have some positive rules to guide us. I cannot doubt the propriety and necessity of this.† And in adopting any as law, such as approach the nearest to natural justice will be the best. The provisions of the French code, with some modifications, appear to be best adapted for administering equitably in the majority of cases that may occur.‡

* Again, those on whom the signs both of apoplexy and suffocation are present, must be deemed to have died first. (KRUGELSTEIN.)

† I cannot, however, agree with a writer in Brande's Journal, vol. iii. p. 41, who proposes that in *all cases*, the order of nature should be presumed to have taken place, and that the child, whatever be its physical powers or age, should be deemed to have survived the parent. Certainly this is not warranted by observation or deduction.

‡ The following remark will show that the necessity of enactments is elsewhere acknowledged: "With regard to cases of comparative unfrequency, indeed our law is culpably careless. We have shown ourselves no friends to codifying; but we contend that every ascertained doubt should be disposed of without delay." (London Law Magazine, vol. ii. p. 549.)

CHAPTER XI.

AGE AND IDENTITY.

1. Notice of some questions in which the testimony of medical men may be required as to the age of an individual—the age at which he is considered capable of committing certain crimes. The period of absence that is considered as presumptive proof of a man's death. Decisions on this subject in England—Scotland—States of New York and South Carolina. Age beyond which pregnancy is deemed impossible. The Douglas cause. Laws on this point—cases.
2. Identity. Cases where physicians may be required to identify individuals by physical marks. Remarkable instances in France—Martin Guerre—Francis Noiseu—Sieur de Caille—Baronet—Sieur Labbe. English cases. Effects of age in altering the personal appearance. Case of Casali. Remarkable cases of disputed identity in New York and Louisiana. Cicatrices and their value in disputed cases.

AGE is a subject of copious discussion with many of the older writers on medical jurisprudence, and even Foderé has enlarged on it. I can, however, conceive but very few cases in which a physician can be called on to give an opinion. There are laws in all civilized countries defining the various periods, such as minority, majority, etc., and if the registers or testimonials to prove these are wanting, it is difficult to suggest any physical proofs on which a medical man, more than any other individual, can venture to pronounce decisively.*

There are, however, exceptions to these remarks, as the readers of these pages must have noticed. It is often of the highest importance to ascertain the age of a foetus or a new-

* It appears, however, that in certain cases where doubt exists as to the age of an individual, *he is to be brought into court, to be inspected by the judges*, whether he be of full age or not. If the court has, upon inspection, any doubt of the age of the party, it may proceed to take proofs of the fact. (Blackstone, vol. iii. p. 332.) See Poyntz's case in Croke's James, p. 230. Also *Silver v. Shelbach*, (1 Dallas' Pennsylvania Reports, 166.)

born child; but the proofs of these have been more properly, we conceive, investigated in another place. There are also some points in the age of individuals which deserve consideration in a treatise on MEDICAL POLICE, such as the proper period for contracting marriage, and the division of life into the different terms of infancy, youth, manhood, and old age.

It is proper, notwithstanding, to make some suggestions relative to this subject.

1. In the English, and in our own laws, certain periods of life are prescribed, before which individuals shall not be deemed guilty of particular crimes. Thus a male infant under the age of fourteen is considered incapable of committing a rape. But it deserves notice that, occasionally, though of course rarely, there are cases of *early puberty*, where the strength and ability are fully sufficient to complete this crime, under certain circumstances. Instances are related where the generative functions have appeared perfect at a very early age, and every mark of manhood has been present.* Whether in

* Instances of premature puberty are numerous both in the male and female. Of the former I may refer to those related by Drs. White and Breschet, and Mr. South, in the *Medico-Chirurgical Transactions*, vol. i. p. 276, vol. xi. p. 446, and vol. xii. p. 76. The subjects were each about three years of age. Ballard mentions a case that lately occurred in Paris, where a female attributed her pregnancy to a boy ten years old. Instances of infantile menstruation are related by Dr. Wall, *Medico-Chirurgical Transactions*, vol. ii. p. 116, and by Sir Astley Cooper, *do.*, vol. iv. p. 204; also, by Meckel, *Lancet*, N. S., vol. iii. p. 264. Dr. Davis, in his *Obstetric Medicine*, pp. 236, 728, has collected a number of cases, with references to many others. For other cases of precocity in either sex, see Stalpart, vol. i. p. 336; *London Medical and Physical Journal*, vol. xxvii. p. 522; *Chapman's Journal*, vol. ii. p. 198; *Philosophical Transactions*, vol. xix. p. 80, vol. xlii. p. 627, vol. xliii. p. 249; *London Medical Repository*, vol. xvii. p. 353.

A case by Dr. D'Autrepont, of a female child, in *Monthly Journal of Foreign Medicine*, vol. i. p. 185, from a German journal.

A case by Mr. Thomas Smith, in Scotland, *Brewster's Edinburgh Journal of Science*, N. S., vol. i. p. 26.

Menstruation at nineteen months, case by Dr. Dffenbach, (from Meckel,) *North American Archives*, vol. i. p. 70.

A case near London, by Dr. Burne, *Midland Medical and Surgical Reporter*, vol. i. p. 137.

A case in New Jersey, (male,) by Dr. Johns, *New York Medical and Phy-*

a case of this kind, the premature powers of the individual should not be considered, instead of his actual age, is a question for legislators. While the period is positively fixed by law, no question can be raised concerning it.*

sical Journal, vol. ix. p. 237; and one at Quebec, in a female, by Dr. Tessier, vol. ix. p. 240.

A recent case by Dr. Le Beau, of Louisiana, of infantile menstruation. (*American Journal of Medical Sciences*, vol. xi. p. 42.)

A remarkable case of menstruation at one year, and pregnancy at nine. On the twentieth of April, 1834, this female, aged ten years and thirteen days, was delivered of a female child, weighing seven and three-fourths pounds. This occurred in Hickman County, Kentucky, and is related by Dr. D. Rowlett, of Waisborough, in that State. (*Transylvania Journal*, vol. vii. p. 447.)

A case in Germany, of menstruation at one year, related by Dr. Susewind. (*Medico-Chirurgical Review*, vol. xxxiii. p. 606.)

A case by Mr. Peacock, of menstruation at five years. (*London Med. Gazette*, vol. xxv. p. 548.)

Menstruation at eighteen months, case by Dr. Lens, of Dantzic, from Casper. (*British and Foreign Med. Review*, vol. xi. p. 225.)

A boy, aged five years, at Lynn, Connecticut; case by Dr. Durkee. (*Boston Med. and Surg. Journal*, vol. xxiii. p. 299.)

A boy, aged three years and four months, at Cambray, in France, with the generative organs like those of a young man in size and appearance. Semen secreted; case by Dr. Ruelle. (*Bulletin de l'Academie Royale de Médecine*, vol. viii. p. 622.)

Menstruation at two years of age, in a girl born in the mountains of Saxony; the genitals were covered with hair, and the breasts firm. This case, related by Dr. Carus, was examined by the Academy of Medicine of Dresden. (*London and Edinburgh Monthly Journal Med. Sciences*, vol. ii. p. 1050.)

A boy, aged nearly four years, born in the State of Mississippi, with genital organs largely developed, and pubes covered with hair. His strength is very great; case by Dr. Lopez. (*American Journal Med. Sciences*, N. S., vol. v. p. 500.)

Case by Wm. Whitmore, a female child had the catamenia regularly at periods of three weeks and two or three days, from a few weeks after birth until four years and some months, when she died. On dissection, the breasts were quite large, and there was hair on the mons veneris. (*Med. Examiner*, vol. ix. p. 121, from *Northern Journal of Medicine*, July, 1845.)

* "A boy under fourteen years of age cannot, in point of law, be guilty of an assault with intent to commit a rape; and if he be under that age, no evidence is admissible to show that, in point of fact, he could commit the offence of rape." *Regina v. Philips*, 8 Carrington and Payne's Reports, 736. (*American Jurist*, vol. xxiii. p. 173.)

By the civil law, minors under the age of ten and a half were not punish-

2. Metzger suggests another point, which may occasionally require the opinion of a physician, viz.: *How long a period of absence shall be considered as presumptive proof of a man's death?**

There are some law cases which may be quoted in elucidation of this. In *Benson v. Oliver*, in the court of exchequer, 5 George II., 1732, before Chief Baron Reynolds: "Upon trial of an issue directed by the court of exchequer, the deposition of a witness examined in 1672 was offered to be read, without any evidence of his being dead, relying upon the presumption from length of time, which would entitle the reading of a deed at that date. The chief baron refused to let it be read, saying, a deed had some authenticity from the solemnity of hand and seal. He said, if proper researches or inquiry had been made, and no account could be given of him, he would have admitted it at such a distance of time."† Again, in *Dixon v. Dixon*, where a legatee had been abroad twenty-six years, and had not been heard of for twenty-five years, the master of the rolls said he would presume him to be dead.‡ Chancellor Kent, in this State, has decided that ignorance in a family of the existence of one of the children, who had gone abroad at the age of twenty-two, unmarried, and had not been heard of for upwards of forty years, is sufficient to warrant the court or jury to presume the fact of his death without issue.§

able for any crime; from ten and a half to fourteen, if found to be *doli capaces*, they were, but with many mitigations, and not with the utmost rigor of the law. The exception *nisi malitia suppleat etatem* must be noticed in many criminal cases, and is approved by our own and the English law. (See *Edinburgh Encyclopedia*, art. *Crimes*.)

* Metzger, p. 142.

† *Strange's Reports*, vol. ii. p. 920.

‡ *Brown's Chancery Cases*, vol. iii. p. 510. "Where no account can be given of a person, the presumption of the duration of life (in England) ceases at the expiration of seven years from the time he was last known to be living." Phillips' *Law of Evidence*, p. 152. See also *Doe v. Jesson*, 6 East's Reports, p. 80, and *Dean v. Davidson*, (3 Haggard's *Ecclesiastical Reports*, 554,) *Doe dem. Knight v. Nepean*, (2 Neville and Manning's Reports, 219.)

§ *McComb (executor of Ogilvie) v. Wright*. (*Johnson's Chancery Reports*, vol. v. p. 263.)

In Scotland I find the following stated: "Eighteen years absence, and being holden and reputed dead, was found a sufficient probation to take off the presumption of life.* And in 1830, the court of sessions granted a sum of money to legatees which had been settled on them by a person who went to India in 1805, and who had not since been heard of. Bail was, however, required to repay, in case of his return," etc.†

In a case where a person went as a sailor to Tobago, and had not been heard of for twenty years, and his age, if alive, would have been about fifty, the court of sessions in Scotland allowed the interest of a bequest to the person next entitled, and would have given the principal, if security for its return, should it be required, had been offered.‡

The French code is very cautious on this subject. It requires thirty-five years of absence, or one hundred years since the birth of the absent person, before the heirs can demand a division of his property, and be put in definite possession of it.§

In the State of New York, the presumption of the duration of life is reduced to the period of five years, provided the party has not been heard of during that time, and marriages are allowed to be contracted after the period stated;|| but the space of seven years is adopted in the act for the more effectual discovery of the death of persons upon whose lives estates depend.¶

* Decisions of the Court of Session, vol. iii. p. 435.

† Edinburgh Law Journal, vol. i. p. 101. "In Scotland, so far as marriage is concerned at least, a man is presumed to be dead who is not heard of for seven years, in which case his wife may form a new union, by proclaiming and calling on her husband to appear at the cross of Edinburgh, and as he may be in a distant country or at sea, it is necessary to give him a fair opportunity of hearing the summons, the law wisely provides that he shall also be summoned at the shore and pier of Leith. I am not aware that the law applies in cases where property is concerned." (DUNLOP.)

‡ Campbell v. Lamont, Cases in the Court of Session, vol. iii. p. 98. For similar cases, see Fettes v. Gordon, *ibid.*, vol. iv. p. 150; case of Mrs. Hyslop, *ibid.*, vol. viii. p. 919. In this last, the lord president observed that he remembered the reappearance of a party, after being unheard of for a period of thirty-three years.

§ Code Civil, sec. 129. See the whole chapter.

|| Revised Laws, vol. i. p. 113, and Revised Statutes, vol. ii. p. 687.

¶ Revised Laws, vol. i. p. 103, and Revised Statutes, vol. i. p. 749.

South Carolina. "An absence from the State for seven years, without being heard of, raises the legal presumption of the death of the husband."*

Missouri. "Absence beyond the seas for seven years, without being heard from, raises the presumption of death."†

3. A third subject discussed under this title has been, *the age at which pregnancy is possible, and beyond which it cannot occur*. The last was much canvassed in the famous Douglas cause, tried some years since in England. Its leading incidents were as follows: Lady Jane Douglas was mar-

* American Jurist, vol. xii. p. 152, quoted from 1 Hill's South Carolina Reports, 8, *Boyce v. Owens*.

† American Jurist, xviii. 476, quoted from 3 Missouri Reports, 529, *Salle v. Primm*. The following is certainly worthy of consideration in a revision of the present law:—

The master in chancery was directed to inquire and state whether Mary Bilton was living or dead, and if dead, when she died. He reported that she died in 1821, this being seven years after she was last heard of. The evidence in support of this finding was given by a person not a relation, who deposed that Mary Bilton, in 1809 or 1810, when she was about sixteen or seventeen years of age, clandestinely left the house of her father, who was a small farmer in Yorkshire, and that she had not been heard of since the year 1814, when she wrote a letter to her sister, dated at Portsmouth, and announcing her intention of going abroad. The court considered the master's report to be grounded upon insufficient evidence, and refused accordingly to confirm it. The vice-chancellor of England said: "It strikes me that there is considerable difficulty about this case, which, like every case of the same nature, must be determined by its own peculiar circumstances. Here, a girl about sixteen or seventeen years of age, whose father was a farmer, chose, for some reason which does not appear, to leave her father's house, and to go no one knows whither. But it seems that in August, 1814, she was at Portsmouth, and that she then intended to go abroad. Therefore, it is but reasonable to presume that all along she had been concealing herself, and that she never intended to return home. The mere fact of her not having been heard of since 1814, affords no inference of her death, for the circumstances of the case make it very probable that she would never be heard of again by her relations. How can I presume that she died in 1821, from a fact which is quite consistent with her being alive at that time? The old law relating to the presumption of death is daily becoming more and more untenable. For, owing to the facility which traveling by steam affords, a person may now be transported in a very short space of time from this country to the backwoods of America, or to some other remote region, where he may never be heard of again." (London Law Review, October, 1846, from Simons' Chancery Reports, vol. xiv. *Watson v. England*.)

ried August 10th, 1746, to Col. Stewart. She became pregnant, and this fact was notorious in January, 1748, and on the 10th of July, 1748, being *in her fiftieth year*, she was delivered of twins at Paris. Of these, one named Sholto did not survive to manhood; the other, Archibald, did. Lady Jane, after their birth, miscarried.

In process of time the father and mother both died. Their positive declarations had convinced the Duke of Douglas, and he left his dukedom and other estates to his nephew and their son Archibald, who was the appellant in the cause. The Duke of Hamilton appears to have conducted the prosecution; at all events, the claim was opposed on the ground that they were supposititious children. The cause came up for final adjudication in the House of Lords, in 1769, when Lord Chancellor Camden and Lord Chief Justice Mansfield gave opinions in favor of the appellant. The following extracts from that of Lord Mansfield are interesting, both in reference to the point under consideration and to one noticed in another part of this work, (*Resemblance of children to their parents.*)

“Lady Jane became pregnant in October, 1747, at the age of forty-nine years, a thing,” says he, “far from being uncommon, as is attested by physicians of the first rank, and confirmed by daily experience. It is further proved, that the elder child, the appellant, was the exact picture of his father, and the child Sholto as like Lady Jane as ever child was like a mother.”

“I have always considered likeness as an argument of a child’s being the son of a parent, and the rather, as the distinction between individuals in the human species is more discernible than in other animals; a man may survey ten thousand people before he sees two faces perfectly alike; and in an army of a hundred thousand men, every one may be known from another. If there should be a likeness of features, there may be a discriminancy of voice, a difference in the gesture, the smile, and various other things; whereas a family likeness runs generally through all these, for in everything there is a resemblance, as of feature, size, attitude, and action. And

here it is a question, whether the appellant most resembled his father, Sir John, or the younger, Sholto, resembled his mother. Many witnesses have sworn to Mr. Douglas being of the same form and make of body as his father; he has been known to be the son of Col. Stewart by persons who have never seen him before, and is so like his elder brother, the present Sir John Stewart, that, except by their age, it would be hard to distinguish the one from the other."

"If Sir John Stewart, the most artless of mankind, was actor in the *enlèvement* of Mignon and Sanry's children, he did in a few days what the acutest genius could not accomplish for years. He found two children, the one the finished model of himself, and the other the exact picture, in miniature, of Lady Jane. It seems nature had implanted in the children what is not in the parents; for it appears in proof, that in size, complexion, stature, attitude, color of the hair and eyes, nay, and in every other thing, Mignon and his wife, and Sanry and his spouse, were *toto cælo* different from and unlike to Sir John Stewart and Lady Jane Douglas." The House of Lords decided in favor of the appellant, five peers only dissenting.*

* *Collectanea Juridica*, consisting of tracts relative to the law and constitution of England. (London, 1792, vol. ii. p. 386.) The appellant was afterwards created Lord Douglas, and died in his eightieth year, December 26, 1827. In a brief biography of him, it is stated that his mother's father was fifty-one years old and upwards when she was born, thus being born in 1646, and exhibiting an interval of 181 years between the birth of the grandfather and the death of the grandson. (*Annual Biography and Obituary* for 1829, vol. xiii. p. 433.)

Frequent allusions to this cause will be met with in Boswell's *Life of Johnson*. Boswell was a great stickler for Lord Douglas. (See Croker's *Boswell*, American edition, vol. i. pp. 246, 312, 447, etc.) In the Scotch court of session, the judges were divided, eight for the Duke of Hamilton and seven for Mr. Douglas, and on this the appeal was brought to the House of Lords. I am indebted to Mr. Rich, of London, for procuring for me "A Summary of the Speeches, Arguments, and Determination of the Right Hon. the Lords of Council and Session in Scotland, upon the important cause wherein the Duke of Hamilton and others were plaintiffs, etc., by a Barrister at Law, 8vo., London, 1767." And also, *Letters to the Right Hon. Lord Mansfield, from Andrew Stuart, Esq.*, 8vo., Dublin, 1775. Lord Campbell, *Lives of the Lord Chancellors*, vol. v. p. 290, remarks on the Douglas case as follows: "I believe the general opinion of English lawyers

I have incidentally noticed this subject in a former chapter, and mentioned some cases of births in females of an advanced age.* As to premature pregnancy in European countries, the most astonishing instance, probably, is given by Meyer, of a Swiss girl becoming a mother at nine years of age.† Con-

was in favor of the decision of the court of session in Scotland; but this was produced a great deal by Lord Mansfield's wretched argument, and the very able letters of Andrew Stuart, the Duke of Hamilton's agent, whose conduct had been severely reflected upon. I once studied the case very attentively, and I must own that I came to the conclusion that the House of Lords did well in *reversing*. There was undoubtedly false evidence in support of the appellant; but it would have been too much in such a case to act upon the maxim, 'false in one thing, false in all things,' so as to deprive him of his birthright, from misconduct to which he was not privy. There seems to be no doubt that the Lady Jane, notwithstanding her advanced age, subsequently to the birth of the appellant was pregnant and had a miscarriage; and insuperable difficulties attended the theory of his being the son of Madame Mignon. Being in possession of his *status*, I think the evidence was insufficient to deprive him of it; and the strong family likeness, satisfactorily established, seems to prove that the conclusion of law concurred with the fact of his physical origin."

* Vol. i. p. 295. If such cases present themselves in legal investigations, the proofs in favor of maternity should be clear and decisive. Probably the most remarkable instance on record (*if true*) is that related by the Bishop of Sens, in the Memoirs of the French Academy of Sciences for 1710, of a man in his diocese, at ninety-four, and a woman at eighty-three, having a child. (Memoirs of Literature, vol. vii. p. 78.)

Pliny says that Cornelia, of the family of Scipio, bore a child at sixty. (Paris' Medical Jurisprudence, vol. i. p. 173.) He mentions other cases. In Dodsley's Annual Register for 1775, is the following: "June 25, 1775, the wife of Mr. Ladenberg, wine merchant, in Castle Street, Leicester Fields, in the fifty-fourth year of her age, was brought to bed of twins. Mrs. L., though married upwards of thirty years, never had a child before." Other cases are related in the Cyclopaedia of Practical Medicine, vol. iii. p. 491. During the present year, (1833,) a case has occurred in the English courts, in which the leading question appears to be, whether it is possible for a woman to have a fourth child thirty years after the birth of her first-born? or, in other words, whether this could occur at the age of fifty-one? Dr. Epps mentioned the case at the Westminster Medical Society, and it was allowed that if she had continued to menstruate up to the required time, there was no physical reason why conception might not take place at any period during the interval. (Lancet, N. S., vol. xii. p. 45.) I presume this is the case of Andrews v. Lord Beauchamp, in the vice-chancellor's court, lately mentioned in the newspapers.

† Brendel, p. 76; Metzger, p. 480.

cerning this and similar cases, we can only say, that they are examples of precocity resembling those which occasionally occur in the other sex.

“The English law admits of no presumption as to the time when a woman ceases to have children, though this enters into most other codes.”*

In Scotland there appears to be a similar opinion: “A daughter suing for her provision, which was due to her, failing heirs male of the grantor’s marriage, was repelled, the father and mother being both alive—though the father had even been for a long time furious, and the mother past fifty.”†

The subject of IDENTITY seems to have a connection with the one we have noticed, and like it, may occasionally require the opinion of physicians.

Cases have not unfrequently arisen, both in civil and criminal courts, where the question at issue has been, *whether an individual be really the person whom he pretends or states himself to be*. The controversy in such instances must originate from the resemblance that exists between him and another person; and that this has often been most striking, we have not only the testimony of antiquity, but the experience of all who have had opportunities of extensive observation. The title of one of the chapters of Pliny’s Natural History is *Cases of Resemblance*; and he enumerates several persons who could hardly be distinguished from each other—the great

* The law is thus laid down in *Reynolds v. Reynolds*, (Dickens’ Reports, vol. i. p. 374,) on a motion to divide a legacy among all the children living at the decease of a father. The father was sixty-two, and the wife of the same age, and infirm, and therefore there was no probability of their having more children. Sir Thomas Clarke, Master of the Rolls, said that though it might be improbable, yet it was not impossible, and would have denied the motion, but the father consenting, and the other children consenting, that their respective shares should stand as security to answer what any after-born child, should there be one, might be entitled to, the court granted the motion.

So also, in *Leng v. Hodges*, decided in 1822. (Jacob’s Chancery Reports, p. 585.) A fund was paid to persons entitled to it, subject to the contingency of a female, now of the age of sixty-nine, having children, on their recognizance to refund in case of that happening.

† Decisions of court of session, vol. i. p. 332.

Pompey from the plebeian Vibius, the consuls Lentulus and Metellus, and the impostor Artemon from Antiochus, King of Syria.

When cases, in which the identity of an individual is contested, come before a court, the difference of opinion that exists will generally be of such a nature as to render the duty of the tribunal very difficult. This subject is sure to awaken discussion, and to cause great positiveness of opinion on one or the other side. Every feeling of the heart is enlisted, and the oaths of individuals will often be most discordant and opposite. In such instances, the advice of the physician may assist in leading to the detection of falsehood, and the establishment of truth. If there be anything like positive data, which cannot deceive, he can aid in their development; and they must be drawn from a source which naturally falls under his province.

The narrative of a few cases will prove the most instructive notice that I can give of this subject.

The most celebrated, probably, that has ever occurred, if not in Europe, at least in France, is that of Martin Guerre, brought before the parliament of Toulouse, in 1560. Its incidents are so extraordinary, that many have deemed it a fictitious narrative.

Martin Guerre had been absent from his home for the space of eight years. An adventurer named Arnould Dutille, who resembled him, formed the design of taking his place, and actually succeeded so far as to be received by the wife of Martin as her husband, and to take possession of his property. Children were born to this union; and he lived three years in the family, with four sisters and two brothers-in-law of Martin, without their suspecting his identity. It became, however, a subject of dispute. Several hundred witnesses were examined, and of these, thirty or forty swore that he was the real *Martin Guerre*, nearly the same number, that he was *Arnould Dutille*, while others deposed that the resemblance between the two men was so great that they could not decide whether the prisoner was an impostor or not. The perplexity of the judges on this occasion was very great; but in

spite of many things that weakened his cause, they were on the point of deciding in favor of Arnauld, when the arrival of the true Martin developed the deceit. Even when confronted, the impudence and effrontery of Dutille was such as to lead many to doubt, until the brother and sister of the absent person fully recognized him.

I am unable to say whether physical resemblances were much noticed in this case, as the above narrative is all the authentic information that I have been able to obtain concerning it. In the following instances, however, there appears to have been considerable discussion on these points:—

A child called *Francis Noiseu*, born at Paris on the 22d of December, 1762, was put to nurse in Normandy. When about sixteen months old, it was taken ill, and in consequence was bled in the right arm. It had also a cicatrix on the inner side of the left knee, from a gathering which had been cured by caustics.

On the 13th of August, 1766, this child, aged three years and eight months, was lost; but on the 16th of June, 1768, its godmother, seeing two boys pass, was struck with the voice of one of them. She called him to her and became convinced that it was her godson. The knee and arm were examined, and the cicatrices found.

In the mean while, another person, the widow *Labrie*, claimed this boy as her son. It had marks of the small-pox on its body; and this was, on investigation, deemed a strong argument in her favor, since it was not pretended that Noiseu had labored under this disease previous to his being lost. Many witnesses also attested to its being her child. After several examinations before various courts, it was decided that the boy was the son of the widow Labrie.

Foderé impugns this adjudication, and with great appearance of justice. He observes that there were evidently physical marks sufficient to guide to a proper decision, and that these were disregarded. The cicatrix at the knee, according to one party, was caused by an affection to which *caustics* had been applied; while, according to the other, it had originated from a slight tumor or *abrasion* during the period of nursing.

Certainly surgeons could decide, from the appearance, which of these causes produced it. Again, the boy had a cicatrix on the right arm. The widow Labrie said her child had never been bled, while it was stated that Noiseu's had. Three surgeons, on examining this cicatrix, declared that it was made with a sharp instrument; but others pronounced that it was the consequence of an abscess, and that no mark of venesection was present. Lastly, it was certainly no argument against the maternity of Noiseu, that the boy bore marks of small-pox. He was missing nearly two years, and might have suffered under it during his absence. It appears also that the subject of the dispute had some peculiarities in shape, which were not properly investigated.

The *Sieur De Caille*, being a Protestant, fled to Savoy at the period of the revocation of the edict of Nantes. His son died before his eyes at Vevay. Some years after, an impostor pretended that he was the son of this person, and claimed the succession to his property. He was imprisoned, and his cause remained before the parliament of Aix for seven years. Hundreds of witnesses (among which were the nurse and domestics of the family) swore that he was the son of De Caille; and the public sentiment was strongly in his favor, as he was a Catholic. Testimonials sent from Switzerland, that the real son was dead, were of no avail; and the parliament declared, in 1706, that he was what he claimed to be. The wife of this impostor shortly after discovered, that although she had been silent, yet his elevation would not profit her. She therefore began to mention who he actually was; and on appeal, the cause was transferred to the parliament of Paris. The evidence adduced showed that the late son of De Caille had some distinguishing peculiarities in shape and make. He was of small height, and his knees approached each other very closely in walking. A long head, light chestnut hair, blue eyes, aquiline nose, fair complexion, and a high color, were his other characteristics. The stature of the impostor (*Pierre Megé*, a soldier) was, on the contrary, five feet six inches; and his black hair, brown and thin complexion, flat nose, and round head, sufficiently distinguished him from

the former individual. Other physical conformations were observed, which it is not necessary to mention, but which strengthened the testimony against Megé. The parliament accordingly decided that he was an impostor.

The last French case I shall mention is that of *Baronet*. He was born in 1717, in the diocese of Rheims, and left his native place at the age of twenty-five, in search of a livelihood. Having served as a domestic for a length of time, he returned, after an absence of twenty-two years, to claim the little property left him by his parents. His sister, however, had used it, and she prevailed on a neighbor, named Babillot, whose son had departed about the same time that Baronet went away, to claim her brother. Although the attempt failed, and the individual could not be prevailed on to continue in the opinion that Baronet was his son, yet the sister had sufficient influence to cause her brother to be condemned as an impostor, and to be sentenced to the galleys for life.

A few years produced a revolution in the minds of those who had witnessed this cause, and an appeal was made to the parliament of Paris. The celebrated surgeon Louis was consulted, and his opinion inclined in favor of Baronet, who was discharged and put in possession of all his rights.

The physical facts in this case are so striking, that evidently prejudice, and indeed bribery, must have influenced the first decision. Baronet was sixty years old, Babillot was only forty-six. The father of Babillot swore that his son had a mark (a *nævus maternus*) on his thigh, but this could not be found on Baronet. Other peculiarities were also mentioned, which identified the individual.*

* The above cases are all taken from Foderé, vol. i. chapter ii., who quotes the *Causes Célèbres*. The following is interesting from its connection with physical facts. It is extracted from the *Causes Célèbres* par Mejan, vol. iv. p. 329:—

On the fourteenth of May, 1808, at 10 P.M., the Sieur Labbe, Mayor of the Commune of Foulanges, in the department of the Calvados, in passing on horseback along the highway with the widow Beaujeau, his servant on foot, was fired at with a gun from behind a ditch and through a hedge. He was wounded in the hand. It was an hour and forty-three minutes before the rising of the moon, and the night was dark, yet both Labbe and his ser-

An examination of the cases just related will lead to the conclusion that considerable importance should be attached to physical signs. The recollection of individuals may be weakened, and even the physiognomy of the persons in question may be altered, while marks will remain which are not to be effaced. It is on such that reliance should principally be placed; though I am far from denying that instances may occur where, even in these, a most striking conformity will be observed.

In England, several cases of interest have occurred. Dr. Paris notices, among others, that of Frank Douglas, a well-known man of fashion, who was committed for highway robbery on the positive oath of one of the parties plundered, and very narrowly escaped conviction. On the apprehension of the notorious highwayman Page, the mystery was explained; the personal resemblance being so great as to deceive all ordinary observation.*

"In cases," says Blackstone, "where the prisoner after conviction escapes and is retaken, the jury shall be impanneled to try the collateral issue, viz., the identity of his person, and

vant swore that they recognized the assassins by the light of the discharge. One of the persons accused was arrested, tried, and condemned to death, but an appeal was taken to the court of Cassation. The advocate consulted M. Lefevre Gineau, member of the Institute and Professor of Experimental Physics in the Imperial College of France, *whether it was possible that the priming (amorce) on being inflamed could produce light sufficient to discover the face of the person firing?* Gineau with his son, and Dupuis and Caussin, also professors, with several others, retired on the eighth of September, at 8 P.M., into a dark room, and there Professor Gineau fired several primings, the spectators being stationed at different distances in order to witness the effect. The light produced was strong, but fuliginous, and so rapidly extinguished, that it was impossible to distinguish the individual firing. "A peine etait il possible d'entrevoir la forme distincte d'une tête. On ne reconnaissait pas celle du visage." They then descended into the court-yard of the college, loaded the gun with powder, but the results on discharging were the same. The condemned was acquitted.

Dr. Montgomery, in the art. *Identity*, Cyclopedia of Practical Medicine, mentions several analogous cases. It is, however, not to be deemed a settled point. Devergie asserts that the light produced as above has been sufficient in some cases; and Boutigny remarks that the experiments will require to be renewed, in consequence of the general use of percussion caps.

* Medical Jurisprudence, vol. i. p. 222, and vol. iii. p. 143.

not whether he is guilty or innocent, for that has been tried before. And in these collateral instances, the trial shall be instanter, and no time allowed the prisoner to make his defence or produce his witnesses, unless he will make oath that he is not the person attainted.”*

But there is another subject of consideration suggested by the present inquiry which we must not omit; and that is, the change which a number of years produces, as also the hazard that this alteration may be productive of injury to an individual, in causing doubts of his identity.

A noble Bolognese, named Casali, left his country at an early day, and engaged in military pursuits. He was supposed to have lost his life in battle; but after an absence of thirty years, returned and claimed his property, which his heirs had already appropriated to themselves. Although there were some marks which appeared to identify him, yet the change in appearance was so great, that none who remembered the youth were willing to allow that this was the individual. He was arrested and imprisoned. The judges were in great doubt, and consulted Zacchias, whether the human countenance could be so changed as to render it impossible to recognize the person. This distinguished physician, in his consultation, assigns several causes which might produce such an alteration; as age, change of air, aliments, the manner of life, and the diseases to which we are liable. Casali had departed in the bloom of youth; he then entered on the hardships of a military life, and if the narrative of the individual in question is to be credited, he had languished for years in prison. All these causes, he conceived, might produce a great change in the countenance, and render it difficult to recognize him.

The judges, on receiving this opinion, examined into the

* Commentaries, vol. iv. p. 396. In the *Attorney-General v. Fadden*, (Price's Exchequer Reports, vol. i. p. 403,) the defendant represented that the person who had actually committed the offence had assumed his name, and that the question would be one of mere identity. He therefore prayed to be brought into court by habeas corpus, (he was now in jail,) in order to be present at the trial. It was granted.

physical marks, and as the heirs could not prove the death of Casali, his name and estate were decreed to him.*

It is not, however, in foreign countries only that these difficult cases have happened. An individual was indicted and tried before Judge Livingston, at New York, in 1804, on a charge of bigamy; and the whole evidence turned on the question of his identity. He was called Thomas Hoag by the public prosecutor, but stated himself to be Joseph Parker. Several witnesses swore that they had known him under the name of Thomas Hoag, among whom was a female whom he had married, and afterwards deserted. It was stated that Hoag had a scar on his forehead, a small mark on his neck, and that his speech was quick and lisping. All these peculiarities were found on the prisoner. Two witnesses deposed that Hoag had a scar under his foot, occasioned by treading upon a drawing-knife, and that this scar was easy to be seen; and had been seen by them. On examining his feet in open court, *no scar was to be found on either of them*; and it was further proved, that at the period of his alleged courtship of the second wife in Westchester County, he was doing duty as a watchman in the City of New York. The jury acquitted him.†

* Zacchias, Consilium, No. 61. It is to such cases that the beautiful passage from Marmion is applicable:—

“Danger, long travel, want and woe,
 Soon change the form that best we know;
 For deadly fear can time outgo,
 And blanch at once the hair:
 Hard toil can roughen form and face,
 And want can quench the eye's bright grace,
 Nor does old age a wrinkle trace
 More deeply than despair.”

The following singular case is mentioned by Dr. A. T. Thomson: “I recollect a captain of an Indiaman, who was a man of low stature when he left England, but had acquired upwards of an inch in height on his return—a circumstance which the surgeon ascribed to his having been salivated twice in the course of the voyage.” (London Medical and Surgical Journal, vol. vi. p. 519.) Such cases, in persons beyond the usual period of growth, must, however, be very rare.

† Hall's American Law Journal, vol. i. p. 70. Dr. Smith also mentions a case that occurred in England in 1817, where, on an inquest, an old man

Case of Salomé Muller. In 1843, Salomé Muller, aged about thirty, sued for her liberty in Louisiana. She alleges that she was a free white woman, born in Germany, and brought at three years of age to America, in 1818, but her mother died on the passage, and her father soon after his arrival; and that, before she was aware of her rights, she was reduced to slavery, and was now held by one Belmonti. On the other side, Belmonti proved that he bought Salomé from one John F. Miller, who averred that he received her as a slave in 1822 from one Williams, of Mobile. He annexes to his answer the power of attorney from Williams, and also a bill of sale, dated 1823, to a Mrs. Canby, and another from Mrs. Canby to himself, dated 1835. In the former, Bridget was said to be twelve, in the latter twenty-three. In 1838 she was sold to Belmonti, and then stated to be twenty-two.

It appeared in testimony, that a large number of Germans (1800) emigrated from Alsace to this country. They were defrauded by the person with whom they contracted for their passage, suffered much in Holland, were nearly starved on board ship, and finally, after a great mortality among them, the survivors landed at Balize in March, 1818. In Louisiana they were subjected to the redemption laws, sold for their passage, and scattered over the country, although a number remained in New Orleans.

The mother of Salomé and an infant son died on the passage. The father, a son, and two daughters survived. A brother of the father, and a sister and cousin of his wife, with their families, were also among the emigrants. Daniel Muller, the father, and his children, were carried by their purchaser to the parish of Attakapas, one hundred miles above New Orleans. His brother and family were taken to Mississippi,

declared a dead female to be his daughter. On investigation, however, the daughter was found alive and hearty, and was produced before the coroner. The resemblance here was very great between the living and the dead woman. [A case of this kind occurred in Newburg, N. Y., in 1858, which excited great interest. The body of a young woman, discovered in the water, was identified by several of her relations as that of a girl well known to them, yet during the inquest the supposed deceased made her appearance before the coroner.]

and the others of his relatives remained in New Orleans. In a few weeks the last heard that Daniel Muller had died of the fever of the country, and that the boy was drowned in the river. They immediately sent for the two girls, but could gain no information concerning them. And nothing was known of Salomé (1818 to 1843) until this time, and nothing is yet known of the other daughter.

In the summer of 1843, one Madame Karl, a fellow-emigrant in 1818, passing the cabaret of Belmonti, looked in there and saw Salomé performing some menial service. She was so instantly attracted by her peculiar features, and the strong resemblance to those of her friends and fellow-passengers, the Mullers, that she entered the shop and began to question the young woman. In reply, the plaintiff told her she was a slave, belonging to Belmonti, and purchased from Miller. When told by Madame Karl that she was a white woman, she gave no credit to the story. Madame Karl, however, insisted on taking her to those whom she declared were her German relatives. She carried her to the house of her cousin and god-mother, Mrs. Schubert, who instantly, and without any previous intimation of the discovery, exclaimed, "My God, here is the long-lost Salomé Muller!" As many of the German emigrants of 1818 as had any recollection of the lost girl, were collected, and immediately identified her. Among the witnesses was the midwife who assisted at her birth, and who took Mrs. Schubert apart, and asked her if she recollected two very peculiar marks on the child resembling moles, and about the size of coffee-grains, upon the inner part of each thigh. Mrs. Schubert distinctly remembered these; since, on the Atlantic passage, after the mother's death, the care of the child devolved upon her, and she dressed and undressed it for several months. The plaintiff was then called in, and, on examination, these marks were found. On the trial, also, surgeons appointed by the court made an examination, and found them, and testified they were *nævi materni*, congenital, and could not have been artificially produced.

As to the appearance of the plaintiff, she has no traces of African descent in her features. She had long, straight, black

hair, hazel eyes, thin lips, and a Roman nose. The complexion of her face and neck is as dark as that of the darkest brunette. The witnesses testified that both of her parents were of very dark complexion. Salomé had been exposed, for many years of her servitude, to the sun's rays, with head and neck unsheltered, as is the custom of the female slaves. But it was proved that the parts of her person which had been sheltered from the sun were comparatively white.

The broker who conducted the negotiation for the sale from Miller to Belmonti in 1838, swore that he then thought, and it had always been his opinion, that the plaintiff was white. Two or three witnesses, an old Creole woman, who for many years had lived in the immediate vicinity of Miller's residence, and men who were in his employment in 1823, 1824, and 1825, identified the plaintiff, with the greatest certainty, as the same person whom they had often seen, at that time, in Miller's possession; that she was then a little girl, who spoke the English language quite imperfectly, and with a German accent, and that they were told by Miller, or some of his household, that she was an orphan girl who came from a ship, and was taken by Miller from charity.

For the defence, there was urged the improbability of the plaintiff's story—the numerous cases on record where hundreds have testified to a person's identity, and yet it has proved otherwise; the peculiarly excitable and imaginative character of the Germans, and the proved character of Miller for kindness to his slaves. Several persons spoke of seeing the plaintiff in Miller's possession in 1824–25, living as a slave, and perceived no German accent in her speech. Their opportunities for conversation had, however, been very limited.

No "Anthony Williams, of Mobile," who sold her to Miller, was known. A reward was offered for information of his existence or residence, but was never claimed.

The main point of defence, however, was derived from the testimony as to ages and dates.

The petition averred that Salomé was three years old in 1818. The defence brought forward a witness who swore that the plaintiff was delivered of her first child in 1825. It was,

however, subsequently proved that the child was born in 1829 or 1830. The plaintiff's counsel asked for delay until they could obtain a certificate of the registration of birth from the place of Salomé's nativity in Germany, but this was denied.

The court decided in favor of the defendant, on the ground that he could not divest a citizen of his property upon such testimony of identity as that offered by the plaintiff, although he admits that the wonderful resemblance to the Muller family, and the congenital marks, are a very remarkable coincidence, and further said he was satisfied, from the evidence of the plaintiff's delivery, in 1825, that she was not the lost Salomé.

An appeal was made to the supreme court of Louisiana, and the case came up in May, 1845. In the mean while the Consul for New Orleans from Baden Baden, had visited Europe, and brought back with him a certified copy of the registry of birth, from which it appeared that Salomé was born on the 10th of July, 1813, and, therefore, in 1818 was *five* years old, and not *three*.

The case was argued by numerous counsel, and on the twenty-first of June the court decided that they were fully satisfied that the plaintiff was "Salomé Muller," and if not so, if there was another person of the same age, with the same peculiar marks, and bearing so strong a family resemblance, "it would be one of the most wonderful facts of history." She was therefore declared free.*

Case of Shephardson. In February, 1852, a person named Hiram Shephardson, the keeper of a hotel at Roxbury, was arrested, indicted, and tried for obtaining a quantity of butter under false pretences. The person selling the butter, and his clerk, swore to the identity of Shephardson. They gave a description of his person, and swore positively that the defendant was this man. Two other persons, from whom it was asserted that he had purchased butter on the same day, swore as positively to his identity.

Two trials were had, but in neither did the jury agree; then circumstances directed to the true criminal; he was arrested,

* Monthly Law Reporter, published at Boston, for September, 1845, vol. vii. p. 193.

and on bringing him to justice, "the witnesses who had sworn against Shephardson, when brought to see Holbrook, the actual criminal, admitted that they were mistaken, and that Holbrook was the guilty party."

Shephardson was honorably discharged in open court.

[*Lesurque's Case.* On the 27th of April, 1796, the mail from Paris to Lyons was stopped by four persons on horseback, and robbed. The highwaymen murdered the postillion, and at the same moment a person who sat beside the courier stabbed him to the heart. There were no other passengers. For this crime, a young man of respectable character and ample fortune was arrested. He was identified by the servants of the inn where the highwaymen stopped, and by the people at a café at Lieursain, nine persons in all. In vain he proved an alibi; in vain the mistress of the true criminal swore that she knew that Lesurque did not, and that her paramour, named Deboscq, did commit the crime. He was condemned and executed, protesting to the last his entire innocence. Five years afterwards Deboscq was arrested for another crime, and then being confronted with all the witnesses who had sworn to the guilt of the unfortunate Lesurque, they declared that they had been deceived by the extraordinary resemblance of the two men, but they had now not the slightest doubt that Deboscq was the criminal, and of course Lesurque innocent.

[*Lowell Case.* On Saturday, July 26, 1845, an indecent assault was made upon a little girl who was gathering berries in Medford. On Monday, July 28th, an assault of the same character was made under about the same circumstances at Newtown. The young man who made these several assaults escaped, though he was seen not only by the two girls whom he had attempted to outrage, but by several of their companions, and by a man named Houghton, and his wife, who came to the relief of the sufferer in the latter case. On the 14th of August following, a young man was seen by this Houghton, drinking at his well. He and his wife immediately recognized him. He was arrested, and being taken to Watertown, was recognized by each of the girls separately. Ten different witnesses swore that they had seen the criminal at Medford on the

26th, or at Newtown on the 28th, and had not a doubt that the prisoner at the bar was the man. On the other side, it was proved by the most overwhelming testimony, that the prisoner was boarding at Keene, N. H., from the 22d to the 28th of July, on which day he rode to Concord. The innocence of the prisoner was proved most satisfactorily, the judge remarking that the mistakes made by the government witnesses were *almost sufficient to shake all confidence in human testimony.*

Negro Case. A married woman was attacked at her residence in Orange County, N. C., by a negro, who, however, only succeeded in frightening her very much. She swore positively to the person of a free negro who lived in the neighborhood. An old man, who was passing the house just before the crime was committed, swore that he met this free negro, whom he knew very well, who called from a distance to know whether the man who lived in that house was at home, and if there were any dogs there; he answered that he was not, and there were no dogs there. The negro proved an alibi, but might not have escaped, had not a slave in the neighborhood confessed that he committed the crime. The negro being produced in court, the woman declared still that it was the free negro; the old man, too, insisted that he was the man; and, strangest of all, the counselor, to whom the slave had just before made the confession, when asked in court to point out the man, indicated the free negro. The clerk of the court, however, corrected him. The slave was hung, the free negro released.

All the above are taken from a collection of cases of personal identity, published by J. Munsell, Albany, 1854. The next excited an immense interest at the time of its occurrence. Twenty years ago, a hotel keeper in New York was arrested on a charge of presenting a forged check at one of the banks, the clerk swearing most positively to his identity. The prisoner was convicted, but a new trial was obtained, I think more than once, and when repeated prosecutions (persecutions?) had blasted the character, and ruined the fortunes of

the poor man, a noted forger was arrested, whose resemblance had given rise to all the trouble.

Cases of this sort could be multiplied almost *ad libitum*, but it can scarcely be necessary. Indeed I should not have added these, but from an earnest desire to impress on the reader's mind the utter uncertainty of testimony to identity, when based on mere resemblance of face and figure. Even when it is given by the most conscientious witnesses, and by those whose means of knowing are most abundant, experience proves that it is still uncertain. The wife has been mistaken as to her husband, the father as to his child, the sister as to her sister, the life-long friend as to his friend. Such mistakes have been made, and I suppose will be made, on such evidence. Lives have been sacrificed, judicial murders have been committed, and what the law has once done, we all know it will (for that sole reason) do again. May my own profession be ever held blameless in this matter! May her influence always be on the side of mercy! The way in which we can best serve justice, is to illustrate and enforce the uncertainty of testimony to identity based on resemblance. Where malformations, or congenital marks or scars exist, as of the small-pox, of scrofulous ulcers or wounds, we have better ground on which to base an opinion; yet even under such circumstances, recorded cases incontestably prove that most wonderful coincidences have been found to exist. It is even probable that where the same malformation, etc. exists, the attention of the witnesses may be so engrossed by these, that points of dissimilarity, sufficient to negative all idea of identity, may be overlooked.—C. R. G.]

The marks of the executioner, branding, Foderé says, cannot be effaced. By means of a plate of pewter, he saw the letters come out on the back, although the criminal, who had escaped from prison, had caused an eruption over its whole surface. The cold body made the other parts pale, while the fatal letter V appeared in full relief.

Devergie, however, observes that he has often had occasion to examine cicatrices of this kind, without being able to distinguish the letters, till repeated friction with the palm of the

hand revived them. This was more particularly the case when the branding had been inflicted in youth. Malle, of Strasburg, published in the *Annales d'Hygiène*, an elaborate essay on the subject of cicatrices. He observes that Orfila is in error, when he asserts that some cicatrices may in time disappear, particularly on young persons, or that they may undergo such changes, that we cannot specify the nature of the original injury. A cicatrix, he says, is a new and abnormal formation, dependent on a previous lesion, and permanent in its nature.

As illustrative of the variety of cicatrices, and the necessity of occasionally investigating their characters, Dr. Malle adduces the example of the discrimination that must be sometimes made between the effects of injuries by fire-arms and those originating from scrofula or syphilis. So also the distinction between the marks of vaccination and of small-pox.

1. *The relation of cicatrices to their producing cause.* This is greatly modified by the depth of the original injury. If the skin only has been divided, the scar is very different from that of a burn, which has penetrated much deeper. When there has been a solution of continuity, ascertain if possible the mode of cure. If the healing has been by first intention, the cicatrix will be linear, but usually it is somewhat elliptical, more or less, according to the elasticity of the skin, its tension as depending on position or muscular contraction. Where these causes act powerfully, as over the elbow, the cicatrix will be nearly circular. In the spaces between the fingers, the axillæ or the linear form will be marked. Hence the same weapon, inflicting wounds on different parts, the cicatrices may differ.

In *wounds from fire-arms*, we can seldom infer the form of the projectile from that of the cicatrix. Suppuration or gangrene increases the destruction of parts. The tendency, however, in all is to a rounded shape, and the diameter of the cicatrix, both of the entrance and exit wounds, is always less than that of the projectile. If the fire-arm has been discharged at a distance, the cicatrix resembles a perfect disk, depressed in the centre, with the skin tightened from

thence to the circumference, in consequence of its adhesion to the subjacent parts. On the other hand, when discharged very near, the cicatrix will be depressed, with irregular edges, and if recent, may be accompanied with a bluish-colored skin from the burning of the powder. Sometimes, indeed, this color is permanent, owing to the grains of unburnt powder having been driven into the skin. It may occasionally become a question when several cicatrices are present, whether they have originated from one or more discharges of fire-arms. This is a difficult problem on the dead body, but we should keep in mind the extraordinary deviations of projectiles. A remarkable case is that mentioned by Professor Levy, in which a single ball caused four wounds, two on the internal surface of the arm and two on the back.

Burns. The scar here is peculiar. It is formed by the exudation of lymph on the surface of the fleshy points of the suppurating wound, thin and reddish, and never completely supplying the original loss of substance. It varies in form and shape, according to the depth of the injury, and the nature of the subjacent tissue that has been reached. When superficial, it assumes nearly the form of the burning body; when deep, it has a rounded circumference. The edges are rough, concentric, and descending like steps, as if the cause had contracted its circle of action, in proportion as it penetrated more deeply. Solid caustics, on the other hand, leave perpendicular edges; liquid ones resemble superficial burns in their effects, unless they have had a considerable period to operate, and then their cicatrices, like those of the solid, are circumscribed, deep, and depressed in the centre. The scar from a boiling liquid, or from the rapid contact of a burning body, is large, irregular on its surface, and superficial.

These scars sometimes require weeks and even months to complete themselves. They gradually thicken, and contract from the edges to the centre. This continues until the surface becomes white and solid, covered with a thin shining epidermis, which is destitute of mucous tissue, sebaceous follicles, and hair bulbs. Now and then a few white hairs are observed, but the surface is constantly dry, although the whole of the rest of the body be covered with sweat.

In examining the dead body, we find some impenetrable to the minutest injections; others are permanently rose-colored or red, and gorged with venous, rather than arterial blood.

Dislocations. A simple dislocation, immediately reduced, leaves no trace; but in aged, feeble, or rachitic persons, a stiffness of the part will remain; if there has been a rupture of the muscular fibres or tendinous parts, we shall find cicatrices. We should ascertain whether reduction was attempted or not.

Fractures. Callus is the cicatrix of bone. A perfect union indicates that a considerable period of time has elapsed since the injury, particularly if the united part is strong, and equally with the other resists our efforts to break it. It is on the dead body alone that we can satisfactorily ascertain the actual condition of fractures and dislocations. On the living we can only partially examine the surface of superficial bones, as the clavicle, tibia, and forearm, and here the swelling may sometimes be felt at the end of eight or twelve months. We should be careful not to confound this with spina ventosa or syphilitic exostosis.

Surgical cicatrices. Under this head, Dr. Malle includes all those scars which are left after medical applications or surgical operations. In questions of identity, the double scar of the seton may be made to resemble the two wounds from a ball. If epispastics be continued too long, particularly on females, the skin will be destroyed, according to Dupuytren, and an indelible brownish mark will be left. The scars from moxa and the cautery resemble those from circumscribed wounds with loss of the tissue, and we have to refer to their position in order satisfactorily to designate the cause.

Since a certificate of vaccination has become necessary in certain cases, the examiner may be required to distinguish between the real and spurious marks. The last leave only red, superficial spots, very different from the figured cicatrix of the genuine affection. Scars from surgical operations resemble those resulting from wounds.

Spontaneous solutions of continuity, or the scars which succeed scrofulous, syphilitic, cancerous, etc. ulcers. These it is

very difficult to discriminate. Some, indeed, have assigned a distinct character to each, as a round one to the syphilitic, and an angular one to the cancerous; but there is an infinite variety in all of them, and the examiner should rather refer the form to the anatomical state of the part, such as the elasticity of the skin, convexity or depression of surface, etc., than to the disease. We may also draw an inference from the particular place where the scar occurs. Thus, one in the inguinal regions will lead to the suspicion of a venereal origin, and in the neck or over the parotid, of a scrofulous nature. But, in general, we should hesitate before pronouncing a decided opinion.

2. *To what depth had the solution of continuity, represented by the scar, extended?* This can only be answered after death. Dissection must trace it through the various tissues.

It has been incorrectly supposed that some parts of the human body never cicatrize. The process proceeds as rapidly in the mucous tissue as in the cutaneous. The serous also unites with adhesion of the contiguous faces by means of a plastic exudation, while the cellular is in some measure the medium of adhesions. Delpech has well described the characters of the tissue of cicatrices. It is manifestly fibrous, dense, capable of resisting much force, and but little extensible, although it possesses the power of retraction, which, however, is only partially subservient to the will.

A contusion with no injury to the skin leaves no scar, but is marked in its progress by various changes of color, and we can form an opinion from these of the length of time that has elapsed since the injury. Again, there may be internal contused wounds, while the skin is perfect. Suppose one of these, as of the lungs or peritoneum, should heal and form adhesions, and presently the individual dies of a supervening disease. Dissection here will prove that the effects of the wound have not been the cause. In wounds with a sharp-pointed instrument, their shape, although depending somewhat on its form, is mainly influenced by the tension exercised on the part. The cicatrix is smaller than the wound, and of course neither of them will enable us to judge of the size of the weapon.

The parts return rapidly after the injury to their original position. The results obtained by Dupuytren and Filhos, with cylindrical weapons, are hence exceedingly interesting.* Bellemain has also ascertained that muscular fibres, when divided, will unite so perfectly that the point of section cannot be found with the microscope. When divided transversely, the scar is scarcely ever linear, a consequence of their constant contractions.

The same is true in consequence of their imperfect vitality. The nervous tissue, if not completely divided, also unites again.

As to the bones, it is highly necessary that the medico-legal examiner should familiarize himself with the progressive changes of the callus. The division of it, by Dupuytren, into *provisory* and *perfect* callus, should be well understood.

3. *How long since has a cicatrix been formed?* This must be answered by a reference to the facts already stated. In general, the degree of organization is the measure. If red, tender to the touch, and covered with scabs, it is recent. Its perfect characters have been already mentioned. It is impossible to specify the length of time necessary for these changes, and the only exception to this is with the bones. For these, authors have assigned exact periods of progress. None, however, have invariable terms. Feeble health, an irritable temperament, advanced age, unhealthy seasons, and indeed all the causes of disease operate unfavorably, while the presence of any constitutional affection must delay the healing. Lastly, the degree of vitality in a tissue has some influence, also the functions exercised by a part. A wound in the bowels is slow in healing, from their constant motion, and one in the lower extremities require longer time than one in the upper.

In legal medicine, cicatrices are to be considered as to their

* They ascertained that a weapon perfectly cylindrical and pointed will produce wounds with distinct angles. Sanson, on the other hand, found seven oval wounds, produced by a sharp foil, on the body of a female who had been assassinated. [While physician to the city prison in New York, I had frequent opportunities of seeing scalp wounds presenting all the appearances of clear cuts, which were inflicted by the smooth, round clubs of the police.—C. R. G.]

effects on the functions of particular organs (local) and on the system generally. Either of these may need investigation in questions of damages. Inquire whether they are curable or not, whether connected with permanent adhesions, or productive of deformity; and also recollect that an internal injury, though healed, will often predispose to disease of the particular cavity. The case is peculiarly uncertain if it continues fistulous.*

Finally, we should notice all peculiarities of physiognomy, and of professions and trades. These last, as is well known, develop some members more than others.†

In the chapter on Persons found Dead, the reader will find minute directions for identifying the age and sex.

* Annales d'Hygiène, April, 1840; American Journ. Med. Sciences, N. S., vol. ii. p. 496.

† Dictionnaire des Sciences Medicales, vol. xxiv., art. *Impressions*. Orfila, in a memoir on the inferences to be drawn from the color of the hair, in cases of disputed identity, states, as the result of numerous experiments made by him, that the color of black hair can be altered by various agents; that light-colored hair, with sundry exceptions, can be stained of a dark color; but that red, or blond, or chestnut-colored hair, is changed with great difficulty, and indeed it can hardly be effected. In all instances of this description, he remarks that the use of these agents may be detected on a close examination, since it is impossible to effect a total change. Some straggling hairs will peep out and testify to their original color. (Annales d'Hygiène, vol. xiii. p. 466.) [In a German case, tried in 1849, the question whether tatoo marks were permanent, arose, and Caspar presented an elaborate report, asserting that they did occasionally disappear. His report has been very severely criticised, and the prevailing opinion is that these marks are indestructible by time, though portions of the pigment sufficient to blacken the glands of the adjoining parts may be taken up. Med. Times and Gazette, December 11, 1852.—C. R. G.]

CHAPTER XII.

INSURANCE UPON LIVES.*

Definition of an insurance upon life—of an annuity. Objects of inquiry with insurers upon lives—exceptions made by them. What vitiates policies—fraud or falsehood as to the health of the insured—gout—dyspepsia, whether organic or functional—confinement—omission to mention the actual medical attendant—consumption—mental imbecility—disease of the kidneys—habits of intoxication—opium eating. Suicide—and the meaning of this term in cases of life insurance. French annuity case.

AN insurance upon life is a contract by which the underwriters, for a certain sum, varying with the circumstances of each case, engage that if the person whose life is insured die within the time to which the policy is limited, they will pay a sum of money to the person in whose favor the policy is granted. The nature of the agreement is such that, in proportion to the probability of the prolongation of the life, will be the smallness of the premium. Annuities are regulated on the same principles; the only difference is, that here the person deposits the required sum at once, and the company agree to pay a certain annual sum during his life. It is the custom of insurance offices to refer the applicant to a medical man acquainted with his constitution and habits, usually his medical adviser; and persons are also appointed as physicians to the office, who examine all applicants. The result of the inquiries thus made guides them in accepting or refusing a risk. The objects of the investigation, of course, are, whether the party

* In the fifth volume New York Med. and Phys. Journal will be found an essay on this subject, which forms the basis of this chapter. Ellis' Law of Life and Fire Insurance, etc., republished in Sergeant and Lowber's Law Library, June, 1834, chapter ii. part 2, contains a notice of most of the English cases to which I have referred.

labor under any disease likely to shorten life; whether his habits are temperate, and his employment prejudicial to health. Each office has a printed list of questions to be answered by the party's usual medical attendant, and another by their own medical adviser. These questions refer not only to the present state of the party's health, but as to whether he has, at any previous time, had any serious disease; whether he have resided in hot climates, and, in general terms, whether he is a good life to insure.* The underwriter usually undertakes to answer for all those accidents by which the life of man is endangered, unless the party commit suicide or die by the hands of the law. Hence, these are generally excepted in policies,† and in certain cases, also, the premium is special, and subject to particular arrangement, such as exposure to risk by long voyages, or by military service, and residence in unhealthy climates. I observe, also, that during the prevalence of cholera in Great Britain in 1832, several, and probably all, of the offices excluded death by that disease, (unless an increased

* Mr. Lawrence, in his Lectures on Surgery, speaking of the liability of an organ that has once been inflamed again to become so, adds: "Persons who conduct the business of life insurance are well aware of this fact, and therefore inquire not only whether the party is healthy at the time, but whether he has at any previous time had serious disease, and if he have had such disease, they refuse the risk, considering him an unsound man." (*Lancet*, N. S., vol. v. p. 266.)

† In a case where the noted Fauntleroy effected an insurance on his life, it appeared that there was no exception, as to death by the hands of justice, in the policies of this company, (the Amicable.) It was urged, however, that the insured had perpetrated a crime, which the laws of his country punish capitally, and that therefore his death was as much his own act as if he had committed suicide. But the court (master of the rolls) decided that "the obligation to pay did not determine, merely because the conduct of the party insured produced the event, even though such conduct was against the criminal law of the country. To avoid the obligation, the act must be done fraudulently, for the very purpose of producing the event." (*Bolland v. Disney*, 3 *Russel's Chancery Reports*, p. 351.) The House of Lords, however, on appeal, reversed this decision, on the ground that, as a condition in a policy saving the insurance in the event of the party effecting the insurance committing felony, would clearly be void, as affording encouragement to crime, and being contrary to public policy, so no effect could be given to a policy which in reality involved that condition. (2 *Dow and Clarke's Parliamentary Reports*, vol. i. p. 1.)

rate of premium was paid,) during its continuance as an epidemic.

Policies on lives are vitiated by fraud or falsehood as to the health of the insured. This is the point on which the physician's testimony is frequently required. I apprehend that the best and most practical elucidation that I can give of this subject is to notice cases that have occurred.

The two following occurred previous to the establishment of the preliminary inquiries already noted. Indeed, it is probable that the case of Sir Simeon Stuart led the offices to name, specifically, gout and other constitutional disorders.

In an action on a policy made on the life of Sir James Ross for one year, from October, 1759, to October, 1760, *warranted in good health from the time of making the policy*; the fact was, Sir James had received a wound in his loins, which had occasioned a partial relaxation or palsy, so that he could not retain his urine or fæces; this was not mentioned to the insurer. Sir James died of a malignant fever within the time of the insurance. All the physicians and surgeons who were examined for the plaintiff, swore that the wound had no sort of connection with the fever; and that the want of retention was not a disorder which shortened life, but he might, notwithstanding that, have lived to the common age of man; and the surgeons who opened him said that his intestines were all sound. There was one physician examined for the defendant, who said the want of retention was paralytic; but being asked to explain, he said it was only a local palsy, arising from the wound, but did not affect life; but, on the whole, he did not look upon him as a good life.

Lord Mansfield, before whom the case was tried, observed: "The question of fraud cannot exist in this case. When a man makes insurance upon a life generally, without any representation of the state of the life insured, the insurer takes all the risk, unless there was some fraud in the person insuring, either by his suppressing some circumstance which he knew, or by alleging what was false. But if the person insuring knew no more than the insurer, the latter takes the risk. When an insurance is upon a representation, every material

circumstance should be mentioned, such as age, way of life, etc. But where there is a warranty, then nothing need be told, but it must, in general, be proved, if litigated, that *the life was in fact a good one, and so it may be, though he have a particular infirmity*. The only question is, *whether he was in a reasonably good state of health, and such a life as ought to be insured on common terms?*" The jury, upon this direction, without going out of court, found a verdict for the plaintiff.*

In another case, one of the terms of the policy was, that it should be void if anything stated by the assured, in a declaration or statement given by him to the directors of the insurance company before the execution of the policy, should be untrue. [A proviso of this sort is now inserted in almost all policies, and it should never escape the notice of the examining physician.—C. R. G.] In this declaration, the assured stated that "he was at that time in good health, and not afflicted with any disorder, nor addicted to any habit tending to shorten life; that he had not, at any time, been afflicted with insanity, rupture, gout, fits, apoplexy, palsy, dropsy, dysentery, scrofula, or any affection of the liver; that he had not any spitting of blood, consumptive symptoms, asthma, cough, or other affections of the lungs, and that one T. W. was at that time his usual medical attendant." It was urged, on the part of the defendant, that the above was untrue, in this, viz., that at the time of making the declaration he had spitting of blood, consumptive symptoms, an affection of the lungs, an affection of the liver, and a cough of an inflammatory and dangerous nature; that he was thus affected with a disorder tending to shorten life, and that he had falsely averred that T. W. was his usual medical attendant. The defendant proved on the trial, that about four years before the policy was effected, the assured had spit blood, and had subsequently exhibited other symptoms usual in consumptive subjects, and that he died of consumption three years after the date of the policy. The judge, in summing up, read over the several issues to the jury,

* Park on Insurance, vol. ii. p. 583; *Ross v. Bradshaw*, and 1 Blackstone's Reports, p. 312.

and in the course of it stated to them that it was for them to say whether, at the time of his making the statement set forth in the declaration, the assured had such spitting of blood, and such affection of the lungs and inflammatory cough, as would have a tendency to shorten his life. It was held that this was a misdirection, *for that, although* the mere fact of the assured having spit blood would not vitiate the policy, the assured was bound to have stated that fact to the assurance company, in order that they might make inquiry, whether it was the result of the disease called spitting of blood.*

Gout. An insurance had been effected on the life of Sir Simeon Stuart, from April 1, 1779, for one year. The policy contained a warranty that he was about fifty-seven years of age, and in good health, on the 11th of May, 1779. He died within the year. The warranty of health was contested, but it appeared in evidence, that although Sir Simeon was troubled with spasms and cramps from violent fits of the gout, he was in good health when the policy was underwritten, as he had been for a long time before. Lord Mansfield, in commenting on the testimony, observed: "*Such a warranty can never mean that a man has not the seeds of a disorder.*" We are all born with seeds of mortality in us. A man subject to the gout is a life capable of being insured, if he has no sickness at the time to make it an unequal contract." The plaintiff obtained a verdict.†

* *Geach v. Ingall*, 14 Meeson and Welsly's Exchequer Reports.

† *Park*, vol. ii. p. 583, *Willis v. Poole*. In a recent case, (*Swete v. Fairlie*, 6 Carrington and Payne's Reports, p. 1,) the insurer, Mr. Abraham, stated in reply to the usual question concerning diseases, that he was troubled with "occasional indigestion only." This was in 1827. It appeared on the trial, that in 1823 he was seized with depression of spirits, nearly if not quite amounting to insanity. He was not, however, secluded, but took lodgings in the country, and came to town every day and attended to business. This after some time restored him to health. His complexion was florid, and there was the general appearance of a tendency to a determination to the head. He died of apoplexy in 1830. It was decided that "a policy of insurance on the life of another person, who at the time of the insurance is in a good state of health, is not vitiated by the non-communication by such person of the fact of his having, a few years before, been afflicted with a

Dyspepsia. In an action brought by the executors of Dr. Watson against the Equitable Insurance Company, to recover a sum insured on his life, the defence was, that the deceased had, in breach of his declaration to the contrary, a disorder tending to shorten life, and that therefore the policy was void. For the plaintiff, it was proved that Dr. Watson had applied to a physician in Bath for advice concerning dyspeptic symptoms, and that these, though uncomfortable, do not generally, unless increased to an excessive degree, tend to shorten life; and further, that his complaint was not *organic dyspepsia*. Several medical men stated that they had attended him since the policy had been effected, and that he was then quite free of the disorder. On the other side, several medical men stated that they had seen him at the time of his visiting Bath, previously to effecting the insurance, and that they considered him as a failing man. It was left to the jury to decide whether the patient's complaint was organic dyspepsia, and if it was not, whether the dyspepsia under which he labored was, at the time of effecting the policy, of such a degree, that by its excess it tended to shorten life. The jury found that it was neither organic nor excessive, and gave a verdict for the plaintiff.

An application was afterwards made to the court of common pleas to set aside the verdict and have a new trial, on the ground that since the insured afterwards died of the same disorder which he had before effecting the policy, that circumstance was conclusive proof that he was then afflicted with a disorder tending to shorten life.

Mr. Justice Chambre remarked: All disorders have more or less tendency to shorten life, even the most trifling; as for instance, corns may end in a mortification: that is not the meaning of the clause. If *dyspepsia* were a disorder that tended to shorten life, within this exception, the lives of half the members of the profession of the law would be uninsurable. The application was refused.*

disorder tending to shorten life, if it appears that the disorder was of such a character as to prevent the party from being conscious of what had happened to him while suffering under it."

* 4 Taunton's Reports, p. 763, *Watson v. Mainwaring*.

Confinement in jail. In 1815, a case was tried at the Sarum spring assizes, where the defence set up was, that a material fact had been suppressed. The person insured was, at the time, upwards of sixty years of age, but healthy for that period of life. It was not, however, mentioned in the certificate that at this very time she was a prisoner for debt in the county jail. The judge supposed, from the evidence, that by contrivance, the physician had been prevented from stating this fact to the defendants, and therefore directed a nonsuit. But on application to the court of common pleas, a new trial was directed, on the ground that although there was nothing express in the terms of the policy which required the imprisonment to be stated, and although everything called for by the office was answered, yet if the imprisonment were a material fact, the keeping it back would be fatal. It ought, however, to have been submitted to the jury, whether this was or was not a material omission.*

The omission to mention the actual medical attendant proved fatal in the case of Col. Lyon. Previous to the execution of the policy, the office sent a number of printed questions to him, among which were the following: "Who is your medical attendant?" He answered, "I have none, except Mr. Guy, of Chichester." And "Have you ever had a serious illness?" He answered, "Never." Mr. Guy was referred to, and gave it as his opinion, that Col. Lyon was an insurable life. He died in October, 1823, of a bilious remittent fever, and an annuity creditor prosecuted the present suit.

It was proved on the part of the insurance company, that Mr. Guy had not been called to attend him for three years previous to giving his certificate; but that in 1823, Dr. Veitch, a physician, and Mr. Jordan, a surgeon, attended Col. Lyon, from the month of February to that of April, for an inflammation of the liver, and fever, and a determination of blood to the head. The former proved that he considered him in a dangerous way, and had prescribed active medicines, and that he would not have certified him to be in health until the end

* 6 Taunton's Reports, p. 186, *Huguenin v. Rayley*.

of May. It was, however, agreed on all hands, that the disease of which he died had no relation to any of the complaints for which these gentlemen attended him. The verdict was for the defendant.*

Consumption. A female with a disposition to this disease, such as cough and emaciation, had been attended by a medical practitioner for some time immediately previous to effecting an insurance. He, however, did not suppose that structural disease was present, and she was then convalescent. The knowledge of this illness was not communicated to the insurers, and another practitioner, not then in attendance, but who had known her for several years, was sent to examine her, and he stated that she was in ordinary good health. She died, a year after effecting the insurance, of consumption.

Although a verdict had been found for the plaintiff, yet the court ordered a new trial, on the ground that neither the medical attendance nor the illness had been communicated to the insurers, and that the jury must decide whether this concealment was material.

Mental imbecility and disease of the brain. The case about to be related excited great interest and much harsh though just criticism, on account of the position of the parties and the very extraordinary medical testimony.

In 1824, an insurance was effected by Baron Von Lindenau on the life of a Duke of Saxe-Gotha. The duke died February 11, 1825. On trial it appeared that Lindenau had stated that the duke never had had apoplexy, was neither gouty, asthmatic, nor consumptive, not subject to fits, and had no disease tending to shorten life. Two physicians of the duke certified that he was perfectly free from disease, or the symptoms of disease, though he had amaurosis of the left eye since 1809, and since 1819 had been *hindered* in his speech,

* Carrington and Payne's *Nisi Prius Reports*, vol. i. p. 360; Maynard v. Rhode, Secretary Pelican Insurance Company. Duff et als. v. Green, an important decision was given as to the obligation of the party insuring to give information of important facts about which he had not been questioned. The fact not revealed was, that the insurer's mother and brother had died insane. It was held that it was not necessary that a man should state these facts. (London Atlas, November 13, 1852.)

from an inflammation in his chest, of which he was perfectly cured. The agent in Germany stated that the duke had been dissipated in his youth, and had in consequence lost his speech, and some said, his mind; but this was denied by his physicians. On this the company charges extra premium, (£5 instead of £2 17s.) It appeared, on the trial, that the duke had had almost total loss of speech since 1822, which one of his physicians attributed to local paralysis; that he had had periodic catarrh with fever. The duke's chamberlain testified that he never complained of pain in his head; he ate, drank, and slept well, but could not speak. Dr. Dorl testified that his mind was weak though his bodily health was good. On post-mortem examination, no lesion of the viscera of the trunk was found, but in the cranium, a tumor six inches long and two deep, pressing on the brain, and even depressing the bone at the base of the skull. Mr. Green, a surgeon of Guy's Hospital, testified that from the symptoms, he should not diagnose organic disease. The tumor must have existed from early life; the loss of speech was from want of volition, not from the tumor, which, during life, must have been in a passive state. In reply to a question from Lord Tenterden, he said, "If I, as a medical man, was asked by an insurance company concerning the health of a man who was unwilling to move, was subject to control upon his intellect, and had lost his speech, I should not consider myself at liberty to forbear mentioning these circumstances." On this, Lord Tenterden put an end to the case. A new trial was applied for but refused.*

On the medical testimony in this case, the *Medico-Chir. Rev.*, vol. xiv. p. 213, justly remarks: "The duke was then (1824) reduced to a state of idiocy, mutism, and cecity, by a tumor of the brain, yet his physicians (*shame on such physicians!*) certified that his health was good."

Diseased kidney. Mr. Chitty mentions the case of *Simcor v. Bignold*, tried in 1832, for a life policy effected in 1827,

* 3 Carrington and Payne's Reports, 353; 8 Barnewall and Cresswell, 586; 3 Manning and Ryland, 45, (*Lindenau v. Desborough*;) London Medical Gazette, vol. ii. p. 669.

with the usual declaration that Bird was not affected with any *disease tending to shorten life*. Bird died in January, 1831; and on dissection, it was found that a large fungous tumor, weighing two pounds four ounces, occupied the place of the left kidney. Some of the witnesses were of opinion that it must have been of five or six years' growth, and that it was an *incurable organic disease*. The bladder was also diseased, but otherwise the rest of the body was in a healthy state. Mr. Bird had been medically treated for symptoms of his disease, as far back as 1825 or 1826. The cause ended in a compromise, by the defendants refunding the premium received.*

Habits of intoxication. Two cases, in which it was proved that the knowledge of these was concealed from the insurers, although the individuals in question were at the time apparently hale and healthy, have been decided against the plaintiffs.† It was urged, in one instance, that the warranty was

* Chitty's Medical Jurisprudence, part 1, p. 235.

† 6 East's Reports, 188; *Averson v. Lord Kinnaird and others*. 5 Bing-ham's Reports, 503; *Everett v. Desborough*.

In a third case of a similar nature, although the judge (Lord Denman) charged the jury for the defendant, the verdict was in favor of the plaintiff. (London Med. Gazette, vol. xxi. p. 549.)

There are some additional English cases, more recent than any noticed in the text, the substance of which may here be briefly given:—

Chattock v. Shawe. Col. Greswolde made an insurance on his life, and died in two years thereafter. The company resisted payment on the ground that the colonel had been intemperate, and also had epileptic fits, and that these facts had been concealed from them. On these points, there was great diversity of testimony. The verdict was for the plaintiff. Lord Abinger charged the jury that all that was required to be considered was, whether it was satisfactorily proved that the colonel had been subject to fits, and accustomed to intemperate habits *before* the policy was issued. It was not sufficient to vacate the policy, if an epileptic fit had occurred in consequence of an accident. It must be shown that the constitution either was naturally *liable* to fits, or by accident or otherwise had become so liable. (London Med. Gazette, vol. xvi. pp. 554, 607; London Med. and Surgical Journal, vol. viii. p. 112; American Jurist, vol. xviii. p. 419.)

Fisher v. Beaumont. This was tried at York, in July, 1835. The judge told the jury that the question was, whether the individual labored under any disease likely to shorten life, when the policies were effected; whether

only against any *disorder* tending to shorten life, and not against pernicious *habits*. Here, however, the reference to the regular medical attendant had also been omitted.

In a still more recent case, although it was shown that the insured would have periods of drinking large quantities of ale or cider, although possibly not constantly intemperate, and when it was shown that he had a strong constitution and died of inflammation of the lungs, unconnected with drunkenness,

insanity was that disease, and if so, whether it had a tendency to shorten life. There was a verdict for the plaintiff.

In this case, the presence of insanity was proved, and all the medical witnesses, except one, swore that they did not think that it had a tendency to shorten life.

A correspondent of the London Medical Gazette objects to this, and quotes Lawrence in proof that the brains of maniacs show more or less of disease. On the other hand, the long life of many of the insane is urged. Mr. Farr has now furnished us with sufficient facts to decide the question. The mortality of lunatics in England, for one year, was nine per cent.; the annual mortality of the population, from forty to forty-five years, was one and a half per cent. *Madness, therefore, increases the mortality sixfold.* (British and For. Med. Review, vol. vii. p. 21.)

Dr. Crowther (Observations on the Management of Madhouses, p. 109) makes a similar statement.

Wainewright v. Bland. The details of this case I have taken from the London Morning Herald of June 30, and December 4, 1835, which I received through the kindness of my friend, Mr. Balmanno, of Geneva. See also, London Med. Gazette, vol. xvi. pp. 554, 606. Miss Abercrombie, the person insured, was so indigent as to petition for a pension of £10 per annum, and yet her life was insured to the amount of £11,000. She died very suddenly, in consequence, as was asserted, of indigestion, owing to a hearty supper, after walking home with wet feet from the theatre. No proof of poison was found. There were two trials. In the first, the jury could not agree, and in the second, their verdict was for the defendant, and very justly, I apprehend. *From some private information that I have received, I entertain a strong suspicion that the death in question was hastened.* The case is reported in Tyrwhitt and Granger's Exchequer Reports, vol. i. p. 417; and is also noticed in the London Quarterly Review, vol. lxiv. p. 167, American edition, 1850. I am now at liberty to state that I received the information in question from Mr. Balmanno, (now of New York,) who, indeed, at various times, was kind enough to favor me with interesting facts relating to recent medico-legal cases. *The whole truth* relative to Wainewright (the plaintiff and the brother-in-law of Miss Abercrombie) is told in Judge Talfourd's "Final Memorials of Charles Lamb." Miss A. was undoubtedly poisoned with strychnine.

the verdict was for the plaintiff; but the defendants subsequently obtained a rule to set aside the verdict as being against evidence. (1 Carrington and Marshman's Reports, 286. *Southcombe v. Merriman*.)

Opium eating. Professor Christison has directed the attention of the profession to the effects of this on health and longevity. He was particularly called to it by the following case:—

In 1826, the late Earl of Mar effected several insurances on his life in various offices, and among these, one in the Edinburgh Life Insurance Company for the sum of £3000. This was held by a banking-house in Edinburgh, as a security for debt. He died in September, 1828, of jaundice and dropsy; and the company then learned that he had been for years in the habit of taking laudanum to excess; and instead of being as represented, temperate and active, that he had drunk to excess, and led a very sedentary life. They refused to pay, and a suit was instituted.

It is not necessary to go into a detail of the evidence, further than to state that, on the one side, the manifest change in his health and spirits in 1827 was ascribed mainly to his depressed pecuniary situation, which he then discovered to be very low.

On the part of the company, it was proved that he had been in the practice of taking laudanum for thirty years, and in large quantities. He used to take a tablespoonful at a time, on going to bed, and often also when going out to walk, etc. They contended that this was a "habit tending to shorten life." He appears also to have been subject to rheumatism and stomach complaints, previous to effecting the insurance.

The charge of the chief commissioner was in favor of the plaintiffs, principally, as it would seem, on a technical ground, implying that the insurance company did not make the inquiries relative to his health with the care usually observed, and therefore were to be understood as accepting the life at a venture. He also appears to have entertained doubts whether the habit was carried to such an extent, or at all events that

it was so important a circumstance as to render it necessary for Lord Mar to reveal it. The jury agreed with him in their verdict,* but on an appeal to the court of session, it was set aside and a new trial granted, March 9, 1832. The lord chief commissioner observed, that "it was a verdict without due and sufficiently deliberate consideration of the evidence." The parties finally compromised the case.†

Suicide. I have stated at the commencement of the chapter that there are exceptions in policies, in case the person insured commits *suicide*, or *dies by his own hands*. Since the publication of the last edition, several cases have arisen, in which the meaning of one or both phrases has been the subject of legal decision, and the result would seem to render it necessary for insurance companies to alter the terms now in use, or *certainly* to make them more precise. The matter will, however, be best understood by an analysis of the following (two English and one American) cases:—

In the case of *Borrodaile v. Hunter* and others, tried before the English court of common pleas, in December, 1841, the action was brought to recover the sum of £1000, on a policy effected by the Rev. Wm. Borrodaile on his own life, in the London Life Association.

It was shown that on Friday, the 16th of February, 1838, the assured was seen to deposit his hat and cloak in one of the alcoves of Vauxhall Bridge, to cross to the Battersea side, and climb over the parapet, and having gradually crept along to where the water was deepest, threw himself into the river, and was drowned.

It was also proved that the unfortunate gentleman, until within a short time of his death, was a man of remarkable energy and activity, cheerful in disposition, pious, exemplary in his dealings, and affable in manner and address. Unfortunately he became surety for a tax collector named Foster,

* Edinburgh Medical and Surgical Journal, vol. xxxvii. p. 123. Christison on Poisons, p. 626, second edition. I shall notice this subject more in detail, when speaking of opium as a poison.

† *Forbes & Co. v. Edinburgh Life Insurance Company.* (Cases in the Court of Session, vol. x. p. 451.)

who, in November, 1837, made default, and from that time the assured was observed to be an altered man. He appeared to labor under great depression, was subject to fits of absence, lost his appetite, and apparently, in some degree, his memory; spoke little, and did not like to be left alone. He would stay up late at night, instead of going to bed about eleven, as was his usual custom; would observe, he could not bear to go to bed; if he did, he could not sleep, and even if he did sleep, it was still worse. He appeared to feel bitterly his embarrassment through Foster, and once observed to that person's wife, "Oh, Mrs. Foster, I am in such trouble, that I know not sometimes where I am going or what I am doing!"

He appeared to have a presentiment of what might happen, and therefore begged that his brother-in-law would accompany him to London, observing that he did not know what he might do if left alone. He became remiss in the exercise of family prayer, in which he had been before most regular, and latterly he abstained from it altogether. He, however, continued to perform his other duties.

Being vicar of Wandsworth, he performed his duty at the parish church on the Sunday preceding his death; he read the service on the Wednesday following, and on the Thursday attended a board of guardians of the Clapham Union, where he remained from eleven to four, and in the evening attended a reading society, of which he was a member.

On the Friday, (16th,) he appeared more cheerful than ordinary, and rallied his brother-in-law, who was a few minutes behind the breakfast hour, upon his sluggishness, saying, he hoped his early rising would not do him harm. Mr. Borro-dalle ordered the servant to prepare his clothes for traveling on the next day to Worthing, where his wife and children were staying, and desired her (the servant) to get a steak for dinner at six o'clock. He then went out, telling his brother-in-law he was going to the Union, and thence to London, where he should call on his brother, but he never returned.

The defence in this case was, that the insured *died by his own hand*, in contravention of the stipulation in the policy. It was also contended by the defendants, first, that there was

nothing to show aberration of intellect on the part of the insured ; and secondly, if there were, the simple fact of the party dying by his own hand, would vitiate the policy.

“ In this case there could be no dispute as to the facts, but the question resolved itself into a dry point of law on the finding of the jury, whether a party who dies by his own hand, unconscious of right and wrong, thereby avoids the policy.” No witnesses were called by the counsel for the defendants.

Mr. Justice Erskine told the jury that, in his opinion, the true construction of the policy was, that where the assured intended to destroy himself, and had at the same time a sufficient mind to take his own life, the case would be brought within the condition of the policy. His lordship referred to the various circumstances of this extraordinary and important case, and concluded by observing: “ There could be no doubt that the assured, throwing himself into the water, was his own voluntary act, but whether he had the will to destroy himself, knowing what the consequences of throwing himself into the water would be, was a question which he must leave to them to decide upon the evidence.”

The jury found that Mr. Borrodaile threw himself into the water, intending to destroy himself, adding, that previous to that time there was no evidence of insanity ; but they were told by the judge that they must take the act itself into consideration in connection with Mr. Borrodaile's previous conduct, and then say whether they thought at the time he was capable of knowing right from wrong. They retired again, and on their return stated “ that Mr. B. threw himself from the bridge with the intention of destroying himself, but that he was not capable of judging between right and wrong.”

The verdict was then entered for the defendant, with leave to move to enter it for the plaintiff.

On the 30th of January, 1842, Sir Thomas Wilde accordingly moved to enter the verdict for the plaintiff, contending that the verdict was in fact a finding that Mr. Borrodaile was *non compos mentis*, and argued that the condition in the policy, by which it was provided that the policy should be void in the event of the party dying by his own hand, must be construed

to mean "in the event of the party's becoming *felo de se*." The court granted a rule to show cause. On the 6th of June, Mr. Sergeant Channel contended that the finding of the jury was, that Mr. B. threw himself from the bridge, intending to destroy life, and knowing that the act would destroy life; therefore *if the assured by his own agency produced death, the policy was void*, and the verdict ought to remain with the defendants. On the other hand, it was urged that the legal result of the verdict excluded intention in any sense which could make the policy void, and that it was equivalent to a verdict of *non compos mentis*.

The judges took the case under consideration, and in May, 1843, decided that the rule should be discharged, and the verdict remain with the plaintiff. Judges Maule, Erskine, and Coltman were of this opinion, while Chief Justice Tindal dissented.*

Schwabe, administratrix, v. Clift. This case was tried at Liverpool in August, 1845, before Justice Creswell. The plaintiff claimed £900, the amount for which Louis Schwabe's life had been insured in the Argus Office. At his death, the office refused to pay, on the ground now pleaded, viz., that the party insured had terminated his own life by suicide.

The facts were the following: The deceased, whose residence was at Plimpton Grove, Manchester, was a native of Germany, and a silk manufacturer, carrying on his business, which was in a large way, at some distance from his dwelling-house. He was a man who paid much attention to his business, and had greatly exerted his mind, which was of an imaginative turn, in the invention of new patterns. There had been five policies effected on his life, but so long ago as 1836. In 1843 he was observed to be very much excited, and this

* The Jurist, vol. xi. p. 231; Appendix to the Treatise on Annuities, Library Useful Knowledge. The leading point is thus stated in Scott's New Reports, vol. v. p. 410. After quoting the verdict of the jury, as given above: "Held (Dissentiente, Tindal, C. J.,) that upon this finding, the defendant was entitled to the verdict, the proviso embracing *all* cases of intentional self-destruction."

being noticed by his medical attendant, that gentleman remonstrated with him on his too close application to business, and urged his going to the sea-coast for relaxation; he went, and was partially benefited. But at one period of 1843 it was deemed necessary to place him under some personal restraint, and a man was placed in his house to take care of him. He was a very kind and attentive person to his family, and on one occasion, during the illness of his daughter, had watched himself over her night and day, exhibiting, as stated by Mr. Ransom, his medical attendant, extraordinary coolness, apparently from the effort which he made for the sake of his child. On Tuesday, the 7th of January last, being at his place of business in Manchester, he spoke with Mr. Chapel about removing some acids, which were employed in the manufacture there carried on. The next day the witness observed him looking at some of the acids in a manner which attracted his attention. On the Friday following, the 10th, Mr. Schwabe came to Mr. Chapel and asked for some sulphuric acid, of which about half a wineglassful was given to him. This was put in a phial, which the deceased put in his pocket. At this time Mr. Chapel remarked something peculiar in his look. He seemed wild. But the witness did not apprehend his intention, as he was in the habit of making experiments, though he was not considered to be intimately acquainted with the use of these preparations. It would seem that he must have taken the phial into a room at the works shortly after having received the contents, and there swallowed the acid, the empty bottle being discovered, with a cork, some stains on the floor, and a portion of the acid, apparently vomited up after being drunk off.

The cabman proved that he was beckoned to by the deceased in Oxford Street, took deceased up, and observed that he held a handkerchief to his mouth. On arriving at his residence, whither he desired to be conveyed, he said something to Mrs. Schwabe, in which he was understood to say that he had taken poison; and on Mr. Ransom being called in, though deceased was unable to articulate, he gave that gentleman to understand that he had taken sulphuric acid. Mr. Ransom

enumerated other acids, appealing to him as a man of honor, to say if he had swallowed any of the acids mentioned. He shook his head several times, but finally, when asked if it was sulphuric acid, he nodded his head as if to say "yes." He lingered until the next morning, and then died.

The case of *Borrodaile v. Hunter* was animadverted upon by counsel on both sides. In that, however, it appears that the policy contained an exception, "if he should die by his own hands." Here the exception was, "*if he should commit suicide.*" The solicitor-general, Sir Fitzroy Kelly, for the defendants, asked what was the meaning of a man "committing suicide?" If a man was in such a state of consciousness that he knew that death would be the consequence of his act, that was enough. He did not mean to say that it would be sufficient, if the poison acted by mere accident, as if he were to shoot himself unintentionally. But if they were to hear of a man having voluntarily shot himself, or taking poison, how would they describe it, but by saying that he had committed "suicide?" Here the deceased took sulphuric acid, and died in a few hours after in consequence. It was, then, the plain natural meaning of the words, according to plain natural interpretation, to call this a case of "suicide," and there must have been something else in the language of the policy to show that the words in question should be accepted in any different sense. Were it not so, it must happen, by-and-by, that no similar clause of exception in a policy could be effective, for it might be argued that, as no man destroying his life can be in his right mind, no such case of destruction can be one of suicide.

Mr. Knowles, for the plaintiff, urged that there was no doubt of the deceased being of unsound mind, when he swallowed the poison; he was morally and legally irresponsible. Not that the deceased did not precipitate his own destruction, but that being in the state of mind, which had been clearly proved already, he was incapable of committing an act of crime; and the counsel contended further, that the term "commit" did of itself alone imply the doing of something criminally.

His lordship, after recapitulating the facts, as stated in the evidence, told the jury that it was alleged on the part of the defendant, that the policy was void, because the deceased had "committed suicide." To make that out, they must find, first, that Mr. Schwabe died by his own voluntary act; and secondly, that at the time he did the act, he could tell right from wrong, so as to be a responsible moral agent, and to be capable of appreciating the quality of his action. His lordship observed, that he stated this distinctly, anticipating that his judgment might be disputed. If, in this case, the language had been "dying by his own hands," the decision, no doubt, would have been in favor of the plaintiff. These words were of different meaning from those here discussed. The lord chief justice had said, in *Borrodaile v. Hunter*, that "suicide" must mean a "felonious suicide." His own opinion was, that the party must have been a moral agent, (or, as he subsequently stated, in a state of mind capable of distinguishing between right and wrong,) in order to make the policy void.

The jury almost immediately returned a verdict for the plaintiff, for the full amount claimed.

This case was carried up by a writ of error, and after a full argument, the judges (Chief Baron Pollock and Justice Wightman dissenting) held that the direction of the judge was erroneous, for that the terms of the condition included all acts of voluntary self-destruction, and therefore that if A. voluntarily killed himself, it was immaterial whether he was or was not at the time a responsible moral agent.*

Breasted and others, administrators, v. The Farmer's Loan and Trust Company. The declaration was on a policy of insurance upon the life of Hiram Comfort, the plaintiff's intestate. The policy contained a clause, providing that in case the assured should die upon the seas, etc., or *by his own hand*, or in consequence of a duel, or by the hands of justice, etc., the policy should be void. The defendants pleaded that Comfort committed suicide by drowning himself in the Hudson River. Replication, that when the assured drowned himself,

* Common Bench Reports, vol. iii. p. 487.

he was of *unsound mind, and wholly unconscious of the act*. Demurrer and joinder, W. C. Noyes for the defendants, and T. Sherwood for the plaintiffs.

Chief Justice Nelson delivered the opinion of the court: "The question arising upon the demurrer is, whether Comfort's self-destruction, in a fit of insanity, can be deemed a death *by his own hand*, within the meaning of the policy. I am of opinion that it cannot. Since the argument of the case, I have examined many precedents of life policies used by the different insurance companies, and am entirely satisfied that the words in the policy in question import a *death by suicide*. Provisoes declaring the policy to be void in case the insured commit *suicide, or die by his own hand*, are used indiscriminately by different insurance companies as expressing the same idea, and so they are evidently understood by the writers upon this branch of the law.

"The connection in which the words stand in the policy would seem to indicate that they were intended to express a criminal act of self-destruction, as they are found in conjunction with the provision relating to the termination of the life of the insured in a duel, or by his execution as a criminal. This association may well characterize and aid in determining the somewhat indefinite and equivocal import of the phrase. Speaking legally, also, (and the policy should be subjected to this test,) self-destruction by a fellow-being deprived of reason, can with no more propriety be ascribed to the act of his *own hand*, than to the deadly instrument that may have been used for the purpose. The drowning of Comfort was no more *his act*, in the sense of the law, than if he had been impelled by irresistible physical power; nor is there any greater reason for exempting the company from the risk assumed in the policy, than if his death had been occasioned by such means. Construing these words, therefore, according to their true, and as I apprehend, universally received meaning among insurance offices, there can be no doubt that the termination of Comfort's life was not within the saving clause of the policy. Suicide involves the deliberate termination of one's existence while in the possession and enjoyment of his mental faculties. Self-

slaughter by an insane man or a lunatic, is not an act of suicide within the meaning of the law. I am of opinion, therefore, that the plaintiffs are entitled to judgment on the demurrer." Ordered accordingly.* This case was carried up to the court of appeals, which, in 1853, affirmed the judgment of the court below for the plaintiff, thereby establishing the law as laid down by Justice Nelson. (4 Selden, 299.)

Having collected, I believe, most of the English cases on this subject,† I will conclude with the narrative of one that occurred in France. It relates to *Annuities*, and is modified by the peculiar provisions of the French code.

Article 1974 of the *Civil Code* enacts that "a contract for an annuity on the life of a person dead the same day on which the contract is signed, is void."

Article 1975 extends the same provision to the case of a person *affected with a disease, of which he dies within twenty days after the passing of the contract*. It is to this last that the case is particularly referable.

The Sieur Fried, residing at Strasburg, and aged upwards of sixty, sold on the 11th of March, 1809, a large sum in the funds, for the purchase of an annuity on his own life. He was, at the time of the bargain, and had been for ten years, afflicted with hemiplegia, in consequence of an apoplectic seizure, and he died on the second day after signing the contract, of an attack of apoplexy, excited by an altercation. The question was, whether M. Fried, on the day when he signed the papers, was or was not already under the influence of the disease to which he fell a victim thirty hours afterwards? or, in other words, whether the ten years' hemiplegia and the apoplexy did not constitute one and the same disease?

The following is an abstract of the testimony presented: A hair-dresser deposed that he had dressed M. Fried for upwards of two years, who, during that time, had been repeatedly

* Hill's New York Supreme Court Reports, vol. iv. p. 73.

† Two other cases of some interest, connected with this subject, will be more appropriately noticed in subsequent chapters—one relating to the point, whether a drowning was accidental or suicidal; and the other, whether apoplexy or taking opium had been the cause of death.

seized with apoplectic attacks; that Fried had for a long time been paralytic of the right side, and was obliged to write with his left hand. The day after the new-year, the deceased suffered a severe attack of apoplexy, and this recurred several times till his death. His strength gradually failed, so that he was unable to go out and pay his usual visits.

Dr. Schweighauser stated that he had long known Fried, and that the paralysis arose from an attack of apoplexy. He did not, however, attend him professionally until March, 1808, when he was called in consequence of an apoplectic stroke. He treated him during ten or fifteen days, and left him as well as he was before his illness. In January, 1809, he was again called on the same account. This yielded readily, and he attributed both to slight indigestion. In March, however, he found, on being summoned, that the attack was more serious; stertorous breathing was present, and death soon followed. On inquiry, he ascertained the immediate cause of his last seizure to have been a violent fit of passion.

Some of M. Fried's servants deposed that his mind was impaired, particularly since January; that he walked and spoke with difficulty; that his hearing was affected, and that the attacks of apoplexy were very frequent, sometimes one every two days.

On the other hand, Lacombe, a notary, stated that early in March he had a conversation with Fried relative to the contract which he was about making, and received his directions thereon; that his mind appeared sound, nor did he seem ill, but walked about and sat down apparently with ease. Other witnesses agreed that his intellect was unimpaired.

The case was, by order of the court, submitted to the examination of the professor of the faculty of medicine at Strasburg and Montpellier, and also to sundry professors and physicians at Paris. As is usual, they differed.

The Strasburg physicians were of opinion that Fried was affected with the disease of which he died on the day of signature. Their arguments may be stated as follows:—

Apoplexy, independent of the symptoms which constitute the attack, has certain precursory symptoms, as well as con-

comitant and subsequent ones. To the last belong hemiplegia, affected senses, weakness of mind, etc. All, however, are referable to the same cause. Apoplexy may be styled the acute form of the disease, and palsy the chronic; and from the slightest excitement, as passion, for example, the chronic will suddenly become acute. They in fact only differ as to the degree of intensity, and hemiplegia always terminates in a fit of apoplexy. It is also asserted as a sound maxim, that a disease is not removed until the symptoms characterizing it have disappeared; and the professors apply it to the present case, by observing that hemiplegia is one of the principal elements of apoplexy.

The professors at Montpellier, in their consultation, totally reject the idea of apoplexy and palsy being the acute and chronic forms of the same disease. Paralysis is a consecutive and permanent state; apoplexy a primitive and temporary one. As to paralysis being an element of apoplexy, this would be to suppose that there could be no apoplexy without paralysis, when the contrary is undoubtedly true. And again, paralysis arises from many other causes besides apoplexy.

In this case, it is granted that there was a predisposition to apoplexy, induced by the paralysis, but predisposition to a disease does not carry with it the idea of its actual presence; many causes may annihilate the predisposition; and even if present, a foreign cause, as in this instance, may be necessary to excite the complaint.

Marc, Chaussier, Desgenettes, and Renaulden constituted the Parisian board of reference. They agree in opinion with those of Montpellier.

They observe that palsy consists in a lesion of the nerves of motion and sensation; apoplexy, in a suspension or abolition of sense. Hence different organs are necessarily affected in each. There is no such disease as chronic apoplexy, since death must follow a prolonged attack, but paralysis may occur in three ways, independent of apoplexy, as from compression, section of nerves, etc.; as an *avant-courier* of apoplexy; and lastly and most commonly, as a consequence of it.

Was it the latter in this case, and if so, the consequence of a disease the disease itself? The remark, that the symptoms must be removed before the complaint can be considered as cured, does not apply here. He had no symptoms of apoplexy, and the different attacks of it, so far from proving a continuity of the same disease, directly indicate the contrary. Every seizure is an independent affection, arising from a particular organic derangement, and this derangement must occur in order to produce a second. How, then, can paralysis be called chronic apoplexy?

The mind of the deceased, from the most intelligent testimony, appears to have been sound. Even those who question it, rather speak of loss of memory than of the more essential functions being impaired.

The professors conclude by giving their opinion—First, that Fried was of sound mind when he made the contract; second, that he was *predisposed to apoplexy* at the above period; and third, that the fatal disease did not exist at the indicated time, but was excited by an occasional cause, operating on the predisposition.

From grave consultations prepared in the closet, and submitted to the legal tribunals of the country, the controversy was transferred to the medical journals of Paris. Sedillot and Marc were the principal combatants. The most striking remark of the former is, that the effects of a disease require curative treatment, while the predisposition only calls for preventive. Hence, in applying this to the present subject, he considers paralysis as an *epiphænomon* (a superadded symptom) of apoplexy. The latter is barely cured, and its effects remain.*

In an examination, made some years since, of this case, I felt strongly inclined in favor of the opinion of the Strasburg physicians.† The subsequent publication of Marc suggests, however, some additional points which have considerable

* All the papers, opinions, and discussions relative to this case were collected and published by Dr. Ristelhueber, in an octavo volume, in 1821, entitled "Rapports et Consultations de Médecine Légale."

† New York Medical and Physical Journal, vol. v. p. 40.

weight.* One of the strongest arguments adduced by him is, that the opposite construction would render an individual like Fried totally incapable of making a contract during the last ten years of his life. The article (says he) was framed to prevent an advantage being taken of a person laboring under what are by common consent called acute diseases, or else it would not have been restricted to twenty days. The disease should be continuous, and it is not correct to apply this enactment to a case where there is an intermission of disease, with supervening attacks.

It had been endeavored, in the course of the controversy, to assimilate this case to one of hæmoptysis, the first attack occurring, for example, on the day of signing. This is removed, and the patient has no return of it, but apparently is well. On the nineteenth day, however, he has another, and dies. Does this invalidate the contract? Orfila said not.† Marc, however, is willing to qualify this. If the hemorrhage arises from an *occasional* cause, and a full and perfect intermission has occurred, he will agree to the above opinion; but if it be shown to originate in a tuberculous state of the lungs, and thus prove to be the symptoms of an *essential affection*, the contract is void. If it be replied that the analogy is close between this and Fried's case, since both paralysis and apoplexy arise from lesions of the brain, the objection is met by denying that the same pathological state occurs in each, and also by the fact that the attacks of apoplexy had preceded the time of signing of contract. The article in question requires that the individual should labor under the particular disease at this very period.

It is evident, however, that Professor Marc has some scruples. He suggests the necessity of dissection in these instances, and intimates that an alteration of the article might perhaps be proper, so as to enact that a contract shall be void if signed by a person laboring under a disease actually the same

* *Commentaire Medico-legal sur l'Article 1975 du Code Civil*, par M. Marc. in *Annales d'Hygiène*, (1830,) vol. iii. p. 161.

† *Leçons*, vol. i. p. 457.

(*qui a été individuellement la même*) as that of which he dies within twenty days.

In concluding the notice of this subject, the importance of which must be my apology for prolixity, I cannot avoid expressing a wish that the custom of obtaining life insurances and annuities may become more prevalent with us. This is not the place to insist on their importance to the happiness of individuals. I will only say, that experience has fully demonstrated their value in other countries. When offices of this nature shall be generally established, physicians and surgeons will be called upon to act in their appropriate stations. Let them recollect that their opinions are in all cases reviewed by intelligent and acute bodies of men, and that their medical reputation may be exalted or diminished, according as they perform their duty. Above all, their acts may, as in several of the above cases, be submitted to a jury of their country. The concealment of material facts, or ignorance of them, may prove a source of unceasing regret.*

* Medico-Chirurgical Review, vol. xiv. p. 123.

CHAPTER XIII.

MENTAL ALIENATION.

1. Mental alienation. Two varieties from defective cerebral development—idiocy—imbecility—insanity proper. Mania, its invasion—its varieties. Melancholia. Physical symptoms—its varieties. Monomania. Case of Sprague. Dementia. Moral insanity. 2. Of feigned and concealed insanity. Rules for their detection. Instances of both. Cunning of the insane in eluding detection. 3. Legal definition of a state of mental alienation, and the adjudications under it. Common law of England as to idiots and to lunatics in civil cases. Introduction of the term *unsoundness of mind*—the meaning of it according to Lord Eldon and others—used in our own statutes—attempt to give a strict definition of it. Cases—Mr. Davies—Miss Bagster. English law as to criminal cases—French law—law of the State of New York. Method of proving a person a lunatic—method of proving his recovery. Distinctions made in the law between civil and criminal cases. Lucid interval—ancient meaning of this term—present definition of it by lawyers and physicians—restriction of its meaning in criminal cases. Responsibility of the insane in criminal cases—ability to judge between right and wrong—what this means, and how it should be considered. Cases showing the construction put on it. Scotch law on this. Great difficulty in discriminating between crime and partial insanity—whether those who are proved to have been previously insane, should be exempted from responsibility—arguments in favor of this. Cases—Dean—Howison—Papavoine. Moral insanity. Cases illustrating its nature. Characters distinguishing it from crime—danger of extending it too far. 4. Inferior degrees of diseased mind—delirium of fever—hypochondriasis—hallucination—epilepsy—nostalgia. Intoxication—its presence does not excuse from the guilt of crimes—a frequent cause of insanity. Delirium tremens, an insane state of mind—its presence should relieve from responsibility—characters of this disease—its temporary nature—cases. Old age. 5. Of the state of mind necessary to constitute a valid will—legal requisites—nuncupative wills—wills disposing of personal property—testaments. Persons who cannot make valid wills. Diseases which incapacitate. Law cases in which various states of mind have been urged against the validity of wills. 6. Of the deaf and dumb—their capacity and the morality of their actions—are to be judged of according to their understanding. A person born deaf,

dumb, and blind is deemed an idiot; if he become so, a *non compos*. A deaf and dumb person may be a witness—may obtain possession of real estate—may be tried for crimes. Cases of each.

PREFATORY NOTE.—[Dr. Beck, in the tenth edition of this work, expressed his intention of hereafter omitting the chapter on Insanity, with a view of preparing, in conjunction with the late Dr. Amariah Brigham, a separate volume on mental diseases. In his note to this effect, (p. 784, tenth edition,) Dr. Beck laments the decease of his friend, and alludes but too prophetically to the gathering darkness which was soon to close upon his own labors. In preparing the eleventh edition of his work, the friends of Dr. Beck, feeling that the author did not regard his chapter on Mental Alienation as commensurate with the importance of the subject, nor with the present state of psychological or medico-legal science, had contemplated omitting it altogether. A desire to retain the conservative views held by Dr. Beck on certain points connected with the jurisprudence of insanity induced the course adopted. At the same time, it was thought proper that the portion of the chapter which treats of the phenomena of mental diseases should more nearly conform to the present state of knowledge. With such purpose the annotator has added to the text such matter as seemed to him adapted to this end.

Even if adequate to the objects of a work like this, such descriptions must still be necessarily incomplete. Recognizing, however, the importance, both to the jurist and physician, of a general treatise on insanity, the recent work of Drs. Bucknill and Tuke, entitled "Psychological Medicine," London, 1858, is recommended as a comprehensive and meritorious combination of the labors of two eminently qualified experts, and as one worthy of acceptance as a standard text-book on the topics of which it treats.—D. T. B.]

I HAVE chosen the term Mental Alienation, simply because it is more comprehensive than others in common use. Were not the words *unsoundness of mind* employed at the present day in a technical sense, they would probably be preferable for the object in view, which is, to consider under one title all those diseased states of mind which occasionally require the investigation of the medical jurist. [I think this term has other and more positive claims to that preference which the author gives to it. By its use our attention is directed to the *great fact* of change in the patient, change from what he was, and we are taught, if we desire accurately to appreciate his present condition, to compare him, not, as is too often done, with other men, still less with any arbitrary standard of sanity,

but with himself at some former period of undoubted sanity.
—C. R. G.]

[In examining the subject of insanity, I propose to confine myself to those points which are particularly noticed in civil and criminal cases, as it would neither comport with the limits of the work, nor the objects for which it is prepared, to extend the research over that broad field which is usually occupied by the medical pathologist. And we shall find that the symptoms are the important subject of inquiry, since a decision is usually founded on the estimate formed of them.

Mental alienation, in its ordinary acceptation, embraces a wide range of affections depending upon two very different conditions of the brain. In the first of these the organism of the brain has never reached its ordinary healthy development. In the second, disease has invaded an organ which had previously attained its normal growth and average powers. The distinction thus drawn is one established by nature, and therefore constitutes a reasonable basis for the following classification, which has been adopted by most recent writers on insanity:—

First. Those states of mental *infirmity* depending upon congenital defect of the brain, or on the imperfect development of its faculties during infancy, viz., Idiocy and Imbecility.

Secondly. All those forms of mental *derangement* which arise from disease of the brain subsequent to its full development, and which may be said to constitute insanity proper. This class comprises those conditions of perverted mind commonly recognized by the terms Mania, Melancholia, Monomania, and Dementia.*

This arrangement appears to meet all the requirements of a work of this character, and is free from the objections which attach to many ingenious nosologies of modern construction. However valuable these last may be in a comprehensive treatise on mental diseases, they are neither likely to meet common acceptance nor to remove that confusion of ideas on the general subject which still pervades jury-boxes the world over. Moreover, the terms embraced in this arrangement have, by

long usage, become associated in the common mind with certain groups of symptoms, which constitute, in fact, the prominent features of the various forms of mental derangement.

I. *Mental Alienation from defective cerebral development.*

1. *Idiocy; 2. Imbecility.*

1. IDIOCY consists in a deficiency of the mental faculties, various in degree in different individuals, but either congenital or the result of arrested development occurring during infancy.

It has been thought that absence of the reflective faculties forms the essential characteristics of idiocy; but enlightened and humane men, who have devoted themselves to the care and education of idiots, regard this theory as founded chiefly upon the observation of neglected adult subjects, made under the impression that little could be done to ameliorate their condition. Dr. Wilbur, superintendent of the New York State Asylum for Idiots, at Syracuse, remarks: "I believe that the germs of all human faculties exist in the mind of an idiot, as in the mind of a young infant. But these germs of the reflective faculties, or powers, are undeveloped and inactive. Thus in the infant of only a month old, or in the case of what Dr. Seguin would call 'the idiot type,' *i.e.* an individual who knows nothing, can do nothing, and who wills nothing, 'they are alike apparently wanting.' In the one case, under favorable educational influences, there may result the highest exercise of the reflective faculties. In the other, we may only hope to educe the simplest exhibition of these faculties, and in relation, for the most part, to practical matters." Holding such views as the result of his large experience, Dr. Wilbur adds: "I have hoped and expected that I could develop, in a large majority of the subjects placed under my charge, a capacity for useful occupation, in a greater or less degree; and this involving the exercise of a certain amount of reason and judgment in the little practical matters of every-day life."

The skull in idiots is usually smaller than the normal size, and presents more or less deformity, but all the usual dimen-

sions and symmetry of the head may coexist with undoubted idiocy.* Even in these cases, however, the countenance reveals the sterility of the brain within. The whole body is often diminutive, deformed, or scrofulous, the muscles feeble and tremulous, the senses defective or altogether wanting, and even the power of voluntary motion may be so slight that food must be placed on the base of the tongue before it is swallowed.

In other cases a vigorous physical constitution may be united with a corresponding vitality of animal spirits, exhibiting itself in unwearying activity of the scanty intelligence, a pertinacious curiosity, and corporal agility which rival the instinctive habits of animals.

In the higher forms of idiocy, the individual manifests a very moderate share of intelligence, exhibits some of the moral sentiments, as benevolence, self-esteem, and love of approbation, and may engage in certain useful employments, and all this without special education. In those humane institutions which honor our own and other Christian countries—the asylums for idiots—may be seen numbers of idiotic and imbecile children engaged in work requiring considerable mechanical skill, and reciting in a peculiar but intelligible manner lessons demanding the exercise of attention and memory. At the command of their teachers they point out upon maps the position of countries, rivers, and places readily and correctly, and form combinations of figures with an accuracy which astonishes the observer. But even in this stage of education the blight of defective development remains, and stamps the countenance and character with its unmistakable seal.

Cretinism, which resembles idiocy in its mental symptoms, is mainly confined to certain districts of Switzerland, France, and Italy, where it is endemic. It usually appears at a later period after birth than idiocy, and is more curable. Its subjects present remarkable contrasts of physical development—the head, abdomen, and feet being large, while the chest and legs are small and weak.

* Parchappe, Belhomme, Gallice, and Desmaisons.

2. IMBECILITY. Imbecility is understood to be a state of mental deficiency less degraded than that of idiocy, unaccompanied by the physical malformations which so commonly mark the latter, and manifesting itself subsequent to infancy and during early childhood. It sometimes follows directly upon diseases or injuries involving the brain; but in the majority of instances is simply a constitutional feebleness of mind, which is slowly appreciated by the parents of the child, and finally acknowledged only after anxious years of alternate hope and disappointment. It is, therefore, considered by writers as depending upon an arrest of development of the brain during childhood, rather than upon congenital defect of that organ. Its varieties are almost as infinite as its subjects, and the classification of its degrees attempted by certain learned authors, though perhaps of some psychological interest, have as yet received little attention from professors either of law or medicine.

Imbeciles, unlike idiots, are daily to be seen in places of public resort, comporting themselves with decorum, inviting remark by no peculiarity of appearance or demeanor, and passing among the multitude without recognition. They attend churches and join in public worship; they visit places of amusement and evince rational appreciation of simple plays; they even mix with society without offending good manners or provoking curiosity. They may make purchases which imply correct taste, proper ideas of value, and a cautious regard for economy in their disbursements. And yet their range of ideas may be very limited and their power of memory surprisingly feeble. They may remember the persons whom they have met, and the incidents which transpired in their presence. They praise the eloquence of the preacher and the mimic talent of the actor; but of the construction of the sermon or play they can impart no idea, for they received none. Their observations on commonplace topics may be appropriate and rational, but if beguiled into conversation, their mental vacuity soon becomes apparent in the incongruity and absurdity of their remarks.

Imbeciles vary as much in their feelings, dispositions, and

propensities as they do in understanding. They are capricious or pertinacious; timid or rash, amiable and complaisant, or conceited, irritable, and self-willed; wayward or tractable; slovenly and destructive of their clothing, or scrupulously neat, and even foppish in their devotion to dress. Some are overcredulous and easily duped, others distrustful, reserved, and rude; some restless, active, and industrious, others stolid, lethargic, and indolent. Some are temperate in their appetites and fastidious in their tastes, others indulge in every sensual excess. A few are generous and self-denying, most are selfish and acquisitive of trifles. A certain class of imbeciles seem devoid of all natural affection; they form no attachments, appreciate no kindnesses, and manifest no compunctions of shame or remorse when detected in wrong-doing. They are insensible to the appeals of affection, and invincible by the severest chastisement, though for a time they may exhibit fear, and promise amendment. Among this class may be found those who, without being habitually ill natured, annoy their kindred with persistent ingenuity; those who steal with adroitness whatever they covet, although what they purloin may be of no value to themselves; and those who resent correction or admonitions, or even imaginary offences, by the most direful acts, destroying the property of relatives and neighbors, burning their houses and barns, and witnessing the devastation with indifference or satisfaction. The pliant instruments of shrewd villains, easily entrapped where they do not wittingly offend; commiserated by many, anathematized by more, and feared equally by all, these beings are alike pests to a community and puzzles to philanthropy and science.

II. *Of Insanity proper.*

Mania. This form of insanity is characterized both by intellectual disturbance and emotional disorder, and these vary in intensity from the almost imperceptible wanderings of a mind conscious of its own perturbations and striving to retain its self-control, to that chaotic and passionate fury which typifies the popular idea of the disease. All these various moods

may be either gross exaggerations of natural traits, or wholly at variance with the usual character of the individual; and such change in his disposition, feelings, and ordinary conduct, however slight, if long continued, constitutes a pathognomonic sign of existing or approaching mental disease.

The *invasion* of mania may be insidious, slow, and irregular, or rapid and violent. It is almost invariably preceded by prolonged wakefulness, and in many cases early attention to this symptom undoubtedly prevents its full development. Some patients discern the true nature of these premonitory symptoms, and struggle long with impulses to acts which they know to be strange and improper. They express dread of their impending fate, and even consult physicians, in hope of rescue from its withering touch. Others accept and cherish the delusive suggestions of their distorted imaginations, yet strive to conceal them from their friends, being still conscious that they would be ridiculed and rejected as absurd. These struggles generally end in the triumph of disease and the open avowal of the insane conviction. Sometimes, however, the gathering cloud is stayed, and perhaps finally dispersed, and the clear light of reason shines forth unobstructed.

In another class of cases, known as acute, violent mania, in which the mental derangement is obvious to every observer, the stage of incubation is short, and the progress rapid from mere singularity to unmistakable madness. In the early period of that form of mania characterized by slow and irregular approach, the combination of rational and irrational ideas, and the mingled emotions of health and disease, deceive many an unskilled observer. Before the mental disorder is fully developed the morbid emotions may be either intermittent or exhibited only to few persons, and at considerable intervals. These various moods of perverted feeling are, as before remarked, extravagant expressions of a natural but hitherto controlled disposition, or are entirely foreign to the patient's nature. Usually the change becomes more and more exaggerated until it culminates in established insanity.

The methodical, prudent, and sagacious man of business becomes idle and reckless, or visionary and prodigal. The

affection and endearments of a fond husband or parent are supplanted by moroseness and neglect, or by aversion, severity, and jealous tyranny. One who has hitherto shunned disputation and notoriety is transformed into a violent partisan in politics or theology. Another, whose whole life has been marked by sobriety or moral purity, becomes intemperate, obscene, and profane. Men and women, hitherto remarkable for religious sincerity and devotion, disregard or reject Christian truth, or suffer inexpressible agony in the belief that their previous professions have been false and their lives displeasing to God.

Insanity being once established, the same want of uniformity is observed in its permanent symptoms as in its premonitory indications. Insane persons, in fact, differ as widely as do the sane, both in their characters and conduct, and it is this unlimited variety of mental constitution in health, still maintained in disease, that renders more or less futile all attempts either to classify minutely the phenomena of diseased mind or to establish strict rules and tests of capacity and responsibility. This infinite diversity is, moreover, the cause of that confusion respecting insanity which pervades the public mind, leading it to distrust all teachers who cannot offer it a universal standard wherewith to determine the quality not only of the acts, but of the visionary fancies of madmen and fools.

It is this natural dissimilarity in mental constitution and the relative extent to which the intellectual faculties and emotions are involved by disease that determines the general character of the symptoms in each case. A comprehensive description of the numerous types of mania would be out of place here. In general terms, it may be said that the perceptions of the patient are perverted, and the resulting delusions determine the general complexion of his malady. In the most exaggerated cases the mind is crowded with ideas and images, rushing with chaotic confusion to find vent in hurried and incoherent language. The will can neither arrest nor regulate this impetuosity nor calm the tumult of emotion. Now and then a vague consciousness of confusion flits across the mind, an effort at self-control follows, falters, and fails, and the

mental tempest is renewed. These cases generally present but little medico-legal interest, for the reason that vehemence, destructiveness, and violence usually occur at an early day, and the subject is, in general, promptly consigned to appropriate custody.

In ordinary cases of mania, the general health is not always obviously affected, though there is usually more or less derangement of the secretions which in the more acute cases are diminished. Constipation of the bowels, and a scanty and offensive secretion of saliva are very common. The skin is often dry, harsh, and hot, but in other cases it is moist, the perspiration being of a peculiar and disagreeable odor. The pulse is usually accelerated in the early stages of mania, but may not exceed the normal frequency even when active mental symptoms are present. Dr. Conolly, whose long experience at the Hanwell Asylum, England, commands high and merited respect, says "the pulse is generally quick and feeble, seldom below 96, often as high as 120;" but he has "known young persons in an acute paroxysm of mania, with rapid and violent talking, continued motion, inability to recognize surrounding persons and objects, a disposition to tear and destroy clothes and bedding, without any heat of the scalp or of the surface, without either flushing or paleness of the face, with a clean and natural appearance of the tongue, and the pulse no more than 80 or 85."* Similar conditions are sometimes observed in puerperal mania.

Mania, unless speedily cured or terminating fatally from exhaustion, becomes chronic, and may retain its specific character, either in a subdued but persistent, or in a remittent form; or it may gradually merge into a condition of melancholia or dementia.

When mania has become chronic, the active symptoms subside, and although there may be manifested at irregular intervals all the perversions of intellect and emotion, with the vehemence of manner and utterance and the irrational demeanor of the acute stage, still the habitual condition of the patient is one of comparative rationality.

* Clinical Lectures on Insanity: London.

His ordinary perceptions may be acute and accurate, his memory retentive, his statements reliable in the main, and even his judgment on matters unconnected with his peculiar train of delusive belief or feeling may be accepted as trustworthy. It is this variety of mental disease which proves a constant stumbling-block to the inexperienced observer. Strangers may interrogate these patients, admire their general intelligence, commend the appositeness of their replies, and question the soundness of the judgment which has pronounced them insane. Notwithstanding this mental activity which assimilates the patient to the sane man, the individual may harbor delusions, not always exposed in casual conversations, but in general easily called forth by those already cognizant of their existence. This form of mental perversion may indeed exist from the earliest stage without much emotional disturbance, constituting a form of insanity which has been designated "chronic primary mania." In its insidious invasion and dilatory or irregular advance, in its combination of rational with irrational ideas, and its mingled emotions of health and disease, lie the sources of perplexity both to the physician and the juryman called to interpret the significance of acts offensive to the majesty of law. The absence of exaltation, incoherence, and vehemence in the ideas, language, and demeanor, deceives the novice or convinces him that the imputation of insanity, whether it be fraudulent or unduly charitable, is, at least, unfounded in fact. But under a calm exterior, an intelligent discourse, and a plausible address may linger a deep perversion of the intellectual and moral nature, the offspring of unequivocal disease.

Melancholia may arise as a primary affection, while it also frequently follows upon an attack of mania. In the first instance, it occasionally declares itself suddenly as a consequence of strong moral emotion, as grief or fright. Generally, however, this malady is of slow development when it arises spontaneously. The patient gradually loses interest in his domestic and business relations, becomes depressed, solitary, and often silent. When he talks, it is to proclaim his bereavements and his despair, or to bewail his own demerits, to in-

dulge in self-accusations, and to repel all consolation or encouragement. Melancholia sometimes exists as a simple emotional disorder, displaying itself only in regret and lamentation over the past, or in an overwhelming dread of some impending evil. In some of these uncomplicated cases, anguish and despair seem to take possession of the person, and yet it is impossible to detect any intellectual disturbance. More often, however, the emotional exaggeration is accompanied by delusions which may partake of a hypochondriacal or religious nature, or be prompted by the horrors of a gloomy superstition. These delusions are endless in their variety and combinations, and their description would be unprofitable here.

In primary acute melancholia, the mental agony is generally more demonstrative than in the chronic form, whether this be spontaneous or secondary to mania. The frequent tendency of melancholia in all its varieties, if not soon relieved, is to pass into what Dr. Conolly has graphically termed "the tomb of human reason—dementia." The state of emotional disturbance, however, occurs not unfrequently as the reaction from the exaltation of acute mania, and may then be regarded with satisfaction, since it marks a crisis which often proves the precursor of convalescence and recovery.

The physical symptoms vary as much in melancholia as in mania. The pulse may retain its natural frequency and volume, though it is not rarely slow and feeble. The sleep may be sound and prolonged, or brief and disturbed. The tongue, skin, and natural dejections present the similar absence of uniformity. In general, however, the countenance is distressed, though it may either be rigid with despair or contorted with anguish; the surface is cold, whether it be pallid or livid from feebleness of circulation; and indolence or intolerance of fatigue is almost universal. The waste of the system is not repaired when the mental disease persists, and even though the patient consume his usual quantity of food, emaciation ensues, and fatal exhaustion may result. At other times the physical endurance, under incessant and apparently crushing grief, seems incredible. For years the patient indulges in the same strain of remorse for self-imputed

sins, so horrible as to be beyond the reach of divine mercy. Yet nutrition goes on, the contour of the body is maintained, and the pulse is that of health. In these cases the sincerity of the apparent woe is at least questionable, and its interruptions, induced by causes which would prove wholly inadequate in real grief, are often most ludicrous. A summons to meals, the announcement of friends, or molestation by a companion or attendant, may cut short the lamentation, which yields for a time to other habits quite as automatic, or to an irritation which may vent itself in language and acts most unbecoming in a repentant sinner.

In another very important variety of this affection, appropriately called by French writers "*melancholia with stupor*," the symptoms strikingly resemble those of dementia, though arising from a different condition of the faculties. The mind seems to be almost obliterated. The patient remains fixed in one attitude for hours together, moving neither eye nor limb. He appears lost in reverie, and if attempts be made to rouse him, he is passive, but apathetic still. These persons are for the most part obstinately mute, rarely responding to the most persevering efforts to elicit a remark. They become regardless of their personal appearance, and inattentive to the calls of nature. They defile their clothes and rooms, abstain from food, and would die of starvation if not fed. Suicidal attempts are occasionally made during the progress of this condition without any premonitory change of demeanor. This condition of apparent fatuity is not so wholly hopeless as might be supposed. The subjects of it not unfrequently recover and explain the incentive to conduct which seemed so mysterious and motiveless. They recount correctly many of the incidents of their disease, and surprise their friends by the accuracy with which they repeat remarks made in their presence. One lady, who was removed from the Bloomingdale Asylum, at what seemed the turning-point toward improvement, had appeared wholly unconscious even of the presence of other patients throughout her entire residence at the asylum. She subsequently recovered at home, and in a letter to her former attendant, inquired by name after every patient in the same

department with herself. The prolonged stupor in these cases is sometimes found to have been induced by some horrific delusion or hallucination. The patient had imagined himself on the brink of awful precipices, and impelled to plunge into the abyss before him; or he has been surrounded by the dead bodies of relatives and friends. One lady who remained in this deplorable condition several months, but finally recovered, informed me that she felt the corpse of her mother bound to her own body throughout the whole period; that every waking hour was passed in the most horrible agony; and that she momentarily expected to swoon and die from terror. Some believe themselves assailed by ravenous animals; and one thought himself standing to the chin in a sea of blood. Those who have refused food, had usually supposed that everything offered them contained poison. Some, however, say that they experienced only a vague sentiment of sadness; that at times they understood what was said to them, but that no ideas came to them, or that their tongue refused to move in response. Others, still, testify that the entire period seems like a misty dream, filled with painful but indefinite visions which oppressed their whole being and paralyzed every faculty. The recognition of this form of insanity, as an essentially different condition from true dementia, is not without importance in a medico-legal point of view, for many persons who appear to be either lost in fatuity or simulating the most abject stupidity, may be really laboring under engrossing delusions which impel them with irresistible power to the commission of acts of violence, while their previous and subsequent calmness and taciturnity deceive most observers.

Monomania. That this term has long been and still is most vaguely used, not only by the public, but by physicians and jurists, cannot be doubted. In its indiscriminate application, it is made to include not only those instances of unquestionable insanity in which some prominent delusion absorbs the mind and controls the conduct, but also conditions in which no true mania whatever exists, such as simple eccentricity, and those cases of morbid activity of the perceptive faculties or of the imagination, marked by hallucinations of

the senses, tolerated, and perhaps encouraged, but never ripening into convictions so long as the understanding retains its integrity and controls the fancy. Examples of the last are seen in the well-known cases of Nicolai, of Berlin, and Dr. Bostock, of London, who saw themselves surrounded by apparitions; and of Dr. Ben Jonson, who witnessed a battle of Turks and Tartars around his arm-chair. Brierre de Boismont, in his "*History of Hallucinations*," gives many similar and most interesting instances. The impropriety of applying the term monomania to mere eccentricity of natural character, would seem to be self-evident. The essential character of all insanity is a change in the habits of thought, feeling, and conduct of the individual. In natural prolonged eccentricity no such change is observed, and, however erratic the discourse, or defiant of social custom may be the individual's acts, they are referable to a strong individuality, associated with a fair degree of intelligence and moral courage, or to a pliant imbecility which renders its victim the sport of every caprice, and an object of general ridicule.

The existence of monomania, in its literal sense, has been denied by high authority among psychological writers, while it is as confidently asserted by others. Some have applied the title to those cases of mental alienation in which a single false idea is ever conspicuous, although this one delusion may, of itself, prove extensive perversion of the mind. Others have used it to signify a morbid state of one or a few faculties. But, as has been already stated, several of the faculties may be impaired or lost without producing the slightest degree of mania. It has been well remarked by Dr. Ray, that "before a person can become insane, partially or generally, the mental faculty or faculties must become deranged, by which we discern the relations of things, and arrive at a knowledge of general truths."*

Dr. Bucknill has remarked that "monomania of a single faculty, in its strictly philosophical sense, is not to be discovered in delusion, however simple or circumscribed it may be. If it exists at all, it exists in the pathological condition

* *Jurisprudence of Insanity*, third edition, § 134.

of some one or other of the emotions or instincts. The desire of self-preservation appears to be intermediate between the instinct and emotions. There can be no doubt that it is capable of being pathologically affected strictly by itself.”* Suicidal impulse and its counterpart, intense apprehension of death, are cited by Dr. Bucknill as examples of opposite pathological states of this instinct.

M. Baillarger, physician to the great Salpêtrière Hospital for the Insane at Paris, contends for the existence of monomania as a form of insanity in the strictest limits of its signification, and has published numerous cases in the *Annales Medico-Psychologiques*. Some of these may be found in the Journal of Insanity, Utica, New York, July, 1847. In these cases, the disorder seems to have been simply emotional throughout, or for years prior to any implication of the understanding, from which time a new phase of mental disturbance ensued, exhibiting itself in open delusion or maniacal excitement. Dr. Baillarger concludes that “monomania, in its most simple form, is more frequent than is generally believed, from this one consideration, that this variety of insanity often persists for many years without producing irrational acts, the patients being able commonly to remain in society, where they escape the observation of physicians.” The practical question here involved is, whether such form or degree of mental perversion implies irresponsibility for offences against law, and this question no general reasoning can settle. Every case in which it actually presents itself for serious consideration must be judged by its own facts, and in no two cases do the same series of facts occur. Responsibility and punishableness for acts, otherwise criminal, can and ought to be avoided only by mental disease. Disease, unlike hypothesis, is fortunately an entity, and for this reason the appreciation of morbid vital phenomena, whether physical or mental, is a far simpler process than the solution of supposititious problems in insanity by any rule of metaphysical reasoning. A rational estimate of the acts of an alleged lunatic can be properly based only on a knowledge of all the attending cir-

* Psychological Medicine.

cumstances; and all abstract reasoning disconnected from these must fall short of its aim, for the reason that the ordinary rules of judgment respecting human conduct presuppose a healthy mind and untrammelled conscience, and cannot, therefore, apply to the perversions of mental disease.

The following remarkable case forcibly illustrates the truth of this principle, and at the same time approaches as nearly to pure monomania as any which has recently become the subject of judicial investigation. It will be found in the *Journal of Insanity*, Utica, New York, vol. vi. p. 254, as reported by Dr. Charles H. Nichols, then physician to the Bloomingdale Asylum for the Insane, New York, who was present at the trial as an *expert* witness. On the 10th of October, 1849, Charles Sprague was tried on an indictment for highway robbery, and acquitted on the ground of insanity; the trial taking place before the court of oyer and terminer of King's County, New York, held in the City Hall of Brooklyn, Judge N. B. Morse presiding. In August, 1849, Mr. Sprague left his house immediately after breakfast to go to his business—that of a printer—and a few minutes after was seen walking toward his house instead of toward his office, and to overtake a young lady, to throw her down, snatch the shoe from one of her feet, and, on an outcry being made by several persons who were hard by, to run away. The young lady wore a chain and locket, and other jewelry in sight; but Sprague did not attempt to take anything save the shoe, nor did he do any violence to her person in any respect or degree. Running, he proceeded around a square, and on his way called at his wife's father's, and asked if his father was in town, a matter upon which he was perfectly well informed; then left the house, came directly back to the very spot where he had just taken the shoe, and continued on, without stopping, to his place of business.

He was soon arrested, taken before a magistrate, and when interrogated in regard to the shoe, said he had changed his coat after going to the office, and that the shoe was in the pocket of the one he had taken off, where it was found. He was committed to prison to answer the charge of highway rob-

bery, but subsequently admitted to bail in the sum of \$5000, and allowed to go at large until the time of trial. The principal witness was the defendant's father, a clergyman of the highest respectability, whose testimony was corroborated in every particular by several other witnesses; indeed, by all the court thought it worth while to have brought forward. Charles Sprague's paternal great-grandmother, grandmother, great-uncle, and three great-aunts—being four out of a family of six—and a cousin, are or have been insane. He had himself received, in youth, several severe blows and falls upon the head, and within a year from the last fall, he began to suffer headache, and his friends observed an unnatural prominence of the eyes, with varying dullness and glassiness of these organs. Simultaneously with this, Sprague began to exhibit a propensity to abstract and conceal the shoes of the female members of his family. In the majority of instances, one shoe only was missed, and it was usually found about the house, having been thoroughly soaked with water, twisted up like a rope and then hid away between a feather and straw bed, or in the depths of a trunk, or hung up in a closet, with garments concealing it.

Suspicion at first rested upon the servants, but the real agent being detected and questioned, remained silent, and on subsequent repetitions of the act sought only to evade explanations, generally denying the possibility of his agency, until within the last six years. During this period, when remonstrated with on his singular habit, he would admit that he must have taken the shoe, though he had no recollection of it, and did not know for what he wanted it. The intermissions in this practice have at no time exceeded three or four months at one time.

After the practice became established, Sprague's mother and sisters, and the female servants, habitually locked up their shoes; yet occasionally one was missed and discovered twisted and crumbled after being wet. It was rumored at one time in the family that Sprague had attempted to remove the shoe from the foot of a domestic, and his sister once alarmed her father at night on finding him abstracting her shoes from a

locked drawer. In the early part of the year of the trial, two females, residing in Brooklyn, had a shoe or shoes taken from their feet while walking in the street in the evening; but the offender has never been certainly known.

In July last, the wife of Sprague purchased a pair of shoes for a particular occasion; but when wanted they had disappeared. When interrogated by his father on the act for which he was tried, the son replied: "I think I was going along the street and caught sight of a shoe, and it flashed into my mind that I wanted it, and I dove for it." During the interval between his arrest and trial, Sprague was at times so agitated that his friends apprehended an outbreak of mania, and his propensity became more active than usual; his wife on one occasion finding her shoe in one of the boots he was wearing, and at another time in his coat-pocket.

Mr. Sprague's moral character has been singularly faultless. He has never been known to drink a glass of spirits, to use a profane word, nor to keep vicious company. He was never known to utter a falsehood in any other than a shoe case, or to take anything wrongfully except shoes. Of the hundreds of instances in which he had exercised his unique propensity, he had been *seen* to take a shoe but twice; once in the darkness of night in his sister's room, and again, when in the daytime, in a broad, open street, and in the presence of many spectators, he seized the shoe from the foot of a young lady quite unknown to him.

Mr. Sprague's intellectual faculties are considered adequate to his duties as a higher journeyman printer; but he is apt to become confused when hurried by irregular and unexpected jobs of work. He is most respectably married, and has one child.

Dr. Nichols, in commenting on the case he reports, remarks that "in the avoidance of observation at the time of the commission of the act, (except on the two occasions mentioned,) and of allusion to it at other times, there is evidence of a degree of consciousness and design; but in the imperfect recollection of the act and its events, and of the state of feeling at the time—in the 'haze' that then clouds the mind—there

is an analogy to somnambulism, that state in which there seems to be a suspension of self-consciousness, while the senses and other bodily powers are still exercised in obedience to the impulse of a waking imagination."

Disconnected from other circumstances, the act for which Sprague was arraigned would appear to have been a rude assault upon a defenceless woman, instigated perhaps by no worse motive than a depraved inclination to mischief. But the previous history of his life, his general character and habits, the repeated indulgence of his singular propensity in his own household to the annoyance of his family and without appreciable gratification to himself, together with his course subsequent to the special offence, combine to exclude such interpretation and to substitute commiseration for resentment in passing judgment upon his conduct. Such also was the effect on the minds and verdict of the jury and court who tried him. They regarded his strange propensity as the manifestation of a pure monomania. As before remarked, this case furnishes, perhaps, the most uncomplicated instance of such affection recorded in American publications.

DEMENTIA may either be a primary and acute, or a secondary and chronic affection. The first mode of appearance is rare as compared with the last, but it is not very uncommon among young persons as the sequel of exhausting physical disease or afflictive moral causes. It may also result from excessive mental application and from hemorrhage or other depressing influences. A third form in which it occurs, is in connection with the infirmities of age, hence called senile dementia. In this form the mental disturbance is not a simple loss of power and activity. Such a condition may exist without perversion of the judgment, and it is not until the reason is invaded, and when incoherence of ideas with misapprehension of his relations to his family and society discover themselves, that the individual can be said to be insane.

In *primary dementia* the intellectual faculties are oppressed but not extinguished, and though for months the manifestations of memory and attention may be imperfect or unperceived, the cloud may at last disperse and the intelligence

display itself with all its former vigor. Intellectual lethargy is the characteristic feature of this affection, often unaccompanied by appreciable delusion or hallucination, or by any notable change in the natural feelings and moral faculties, other than simple apathy or an unusually irritable temper. The very scanty conversation of many demented persons is marked by extraordinary phrases, either utterly incomprehensible or of most indefinite signification, but which seem to embody some idea of the patient, who is at times irritated by attempts to procure a better notion of his meaning. These phrases seem usually to be favorite expressions, and generally occur several times in the same interview. To those familiar with the insane, they are very significant, and may safely confirm an opinion of mental disease prompted by other symptoms.

In cases of medico-legal bearing, the inquiry will naturally arise whether the exhibition of this peculiarity be sincere or fictitious. It is to be tested, like other phenomena, with all the scrutiny which a grave responsibility should inspire. For obvious reasons there can scarcely be any resemblance in this particular between different individuals, and it would therefore be useless to give illustrations of these expressions here.

Chronic dementia, as a condition following upon mania or melancholia, is marked by the same feebleness of attention and memory, and in most cases, though not invariably, by the same apathetic state of other faculties as the primary form. But being the sequel of prolonged active disturbance of the intellect and emotions, it still partakes in some degree of the qualities which distinguished the earlier stages of mental disease in the individual. Hence delusions abound among the demented, while the passions and baneful propensities are easily aroused. Sometimes, however, in this condition the vehemence and malevolence of previous mania, or the despondency of melancholia, are exchanged for an amiable docility and sentiments of a pleasurable nature. Demented patients are generally easily recognized by a countenance devoid of intelligent expression; by a general listlessness of manner and attitude, and by their sluggish movements. Yet

these common characteristics are far from being universal. Patients whose mental torpor is proof against the most persevering efforts to elicit a remark, may interest observers by the animation of their countenance and the apparent intelligence of a habitual or occasional smile. So, too, of the demeanor of demented persons. The inertness and general indifference which distinguish them as a class are sometimes supplanted by incessant restlessness of body; by a childish activity of the simpler perceptions, producing a provokingly meddlesome curiosity; and by a senseless garrulity which is equally marvelous for its affluence of words and its poverty of ideas. These symptoms are, indeed, quite common in the dementia of old age, but they are also met with, and not infrequently, in earlier life, and may mask the real condition of the patient. In this way they may also prove the source of grave error in estimating the mental condition of persons accused or convicted of crime, since the activity of a very few faculties may be ascribed to all, or puerility of conduct may induce belief of simulation.

The notion, that in dementia the mind is simply enfeebled rather than deranged, is widely prevalent and productive of serious mischief. Perhaps no phase of insanity so often proves an enigma and a stumbling-block to medical men as well as others. The term is too commonly considered to be synonymous with utter fatuity. Hence the occasional distrust and errors of those physicians who infer the existence of a rational will from the most elementary intelligence, and who suffer scientific impartiality to be warped by their misapprehension of symptoms. The truth is, that the mental faculties are perverted as well as enfeebled, the ideas are not only confused and disconnected, but actually delusive, and the passions, though habitually so inert that human individuality seems almost extinguished, may be occasionally aroused by these insensible delusions, and incite to acts of maniacal and destructive violence.* Yielding in general a ready obedience to

* The subjoined case illustrates very well this variety of dementia: William Crouch was a groom, twenty-eight years of age. No details of his life or character are known prior to 1838. In December of that year, he

their custodians when in restraint, the subjects of dementia when at large are prone to irascibility and contention. Their

was thrown against a wall and received a concussion of the brain. He was taken into the Devon and Exeter Hospital in a state of insensibility, and, according to the evidence of Mr. Tuffnell, under whose care he was for about a month, remained so for some time. He was treated for this disease, and repeatedly bled. Mr. Tuffnell states that on his recovery he advised his master not to take him back again, as he considered that from the injury he had received, the slightest drink might so affect his brain as to render him incapable of taking care of a pair of horses.

Several witnesses deposed as to his condition after the above occurrence. He was frequently dull and absent, having formerly been of a cheerful turn of mind. He avoided society, and was known to sit for hours without speaking. In August, 1839, he became a servant to Lord Falmouth, and was discharged in January, 1840. A witness states that he never heard him converse with a single servant during that period. He was asleep half his time, and was called the half-cracked man. In January, 1844, the prisoner came as waiter and post-boy at the Crown and Thistle Tavern, in London. The landlord deposes that he was incapable of performing these duties, and that he could never make him understand anything. Crouch was always drowsy and heavy, and at last it was necessary to discharge him. He was willing to do his work, but was unable. On the day of the death of his wife, he was at the tavern and took something to drink, (a pint of porter.) He seemed somewhat wild when he came in; he became a little calmer, and then again excited. He left about half-past three o'clock.

Such are all the facts known concerning his previous life; no insane delusions, but dull, stupid, heavy.

The prisoner and his wife had come to their last residence in September, 1843. They had been separated from each other for about a fortnight, but she used to come and see him. They had one child, about nine months old, of which the prisoner appeared very fond.

On the afternoon, (March 30, 1844,) when he committed the murder, his landlady states that he was seen by her for a few minutes, when he left and returned in about an hour, when he had the appearance of a drunken man. She told him that he had been drinking, which he denied. He sat down on a chair and said: "It must be done." She asked what must be done. He repeated the words three or four times, and then fell asleep. At the end of half an hour she awoke him, and told him that his clean clothes had been brought home. He replied that he should never want them. After some other observations, as to the neglect of his wife, he again left. At about twenty minutes before seven, he returned to his room, asked a person on the stairs whether his wife was there, and almost immediately thereafter she heard a little girl, who was in the room, screech. On entering, the deceased was seen lying in a reclining position by the side of the wainscoting, with her throat cut, and dying. He was standing against the chest of drawers and wiping a razor. On expostulating with him, he said, "I have

anger, easily provoked, may ripen into resentments, seeking gratification in the direst acts of violence, perhaps upon persons wholly unconnected with the offence. Such tragedies, results of these mysterious workings of diseased minds, too often shock the public with horror, and almost as often are ascribed, by those whose judgment, education, and professional duty should preserve them from bias, to the deliberate wickedness of a depraved nature. If it be asked, to what shall the community look for protection against such dangers, and how shall justice be enlightened in her duty when the destroyer of human life is arraigned for trial, let it be answered, first, that in the providence of God, human society must probably ever remain liable to danger from this source, since it can neither always be foreseen, nor in every case avoided when apprehended. But mainly is it in a speedy escape from that ignorance respecting the nature of insanity as a disease, and from that absurd prejudice against a fair consideration of its merits as a defence in cases of imputed crime which now dishonor the mass of all the learned professions, as well as the public at large, that we must hope to see the first steps toward safety and true wisdom. And until the wrongful prepossessions which now confuse the common judgment be removed, can it be presumptuous to point to those whose lives are passed amid scenes demanding constant study of insane character and interpretation of insane conduct, as proper guides both of science and justice through the obscurity with which popular indignation on the one hand, and equally morbid pseudo-philanthropy on the other, often invest these cases? Juries, and too frequently lawyers and judges, are apt to think that phy-

done it, and I could not help it." To the constable who arrested him, he said, "It serves her right; she should not have left me."

He was thus evidently jealous—and appears also to have been irritated at her not mending his things. He had threatened, some time previous to the murder, to beat her or cut her throat.

He made a feeble attempt to cut his own throat immediately after the murder. The day after the murder he was crying very much, and wished he was dead. He asked also to see his child. An attempt was made to release the prisoner from his sentence, on the ground of being a monomaniac, but without success. (*Lancet*, June 8, 1844.)

sicians are swift to find what they search for; charitably but erroneously acquitting them of selfish solicitude for their own reputations when deducing opinions from their observations. But little, however, is heard of a class of cases in which experts in insanity fail to discover the mental alienation which mortified kindred and zealous counsel ascribe to an offending relative and client, while their public testimony in cases of an opposite character is the frequent subject of newspaper denunciation. Such obloquy can cease only with the prejudice already alluded to. The medical witness must be content to encounter it, and in each case to abide the verdict which time shall truly render.

MORAL INSANITY.

Having thus described the various phases in which mental alienation most prominently and frequently presents itself, it remains only to notice a term applied by Dr. Prichard (and adopted by subsequent writers) to certain cases of insanity characterized mainly by perversion of the moral sentiments and feelings. Dr. Beck, in quoting the views of Dr. Prichard, makes no other comment than to suggest the remarkable resemblance between moral insanity, as described, and ordinary crime. As all that is material on this subject is given in the latter part of Dr. Beck's chapter, I have no other remarks respecting it to make here, than to express, as a friend of the insane, regret that there should have been introduced into the nomenclature of mental diseases a term which, however appropriate in a strictly psychological sense, has proved most unhappy in its influence on the interests of the insane, and on jurisprudence relating to insanity. It has created prejudices in the minds of jurists and among the public at large, which its convenience in medical classification cannot offset, and has aroused a wide-spread distrust of the loyalty of physicians to the great conservative principles of public safety and justice. Its ambiguity should have forbidden its adoption; for even a large portion of the medical profession attach to the term a meaning quite at variance with that of

writers on insanity. It is supposed by large numbers of intelligent persons, many of whom should know better, to imply a mere perversion of the moral sense, not necessarily dependent upon disease, uncontrollable by the will, and irresistibly impelling the individual to the commission of any or every offence specified in the criminal code.

This interpretation is in striking contrast with that of authors who apply the term moral insanity to cases of undoubted mental derangement, in which disturbance of the emotional or affective faculties constitutes the most prominent feature. But it is sufficient objection to the employment of this term by physicians, when testifying as experts in cases of alleged insanity, that the law does not require of them any classification whatever of mental diseases into varieties.

Counsel, it is true, almost always call upon the medical witness to specify the form of insanity exhibited by the individual whom he may declare insane. But, assuredly, the witness need not, therefore, stultify himself by proceeding to niceties of definition, which may expose the most sagacious to damaging criticism, and even ridicule.

His sole duty in these cases is to state his opinion on the general question, and, if required, to give his reasons therefor. Dr. Bucknill, in treating of this subject, has well remarked that "*the rôle of the physician is to point out to the magistrate that which is disease and that which is not. The law requires his opinion because it recognizes a difference between passion which is the result of indulgence, and passion which is the result of disease.*"* It has already been remarked at the commencement of this chapter, that the division of insanity into numerous varieties, though convenient for purposes of description, and also, to a certain extent, in accordance with nature, is still mostly arbitrary and theoretical. The law does not recognize these divisions, and that physician is a discreet disciple of his science, who, when summoned by the law to interpret phenomena which he is presumed to understand better than laymen, endeavors, in terms comprehensible by the common understanding, to render clear a subject which is but too

* Psychological Medicine, p. 330.

often a mystery even to the acutest human intelligence. If medical science can aid the sacred cause of justice, and at the same time gain the respect and confidence of its sister science of jurisprudence, it will be by tendering it the deductions of its experience with simplicity and directness, seeking no occasion to urge its technicalities upon the public acceptance, in opposition to a general repugnance, however unphilosophical and vulgar.

The public do not understand the term moral insanity as alienists understand it, and the less it is used by medical witnesses the better. The phrase "emotional insanity" has been suggested by recent able authors, as a far preferable substitute. But this is a question for psychological medicine alone. Until the law assumes to classify insanity, and to pin medical witnesses down to a single variety, in offering their opinions, the broad ground taken by Dr. Bucknill—to point out that which is the result of disease—is all that is required of him, and he escapes a labyrinth of confusion who contents himself with this, comparatively, simple duty.

A writer on moral insanity, in the *American Journal of Insanity*, April, 1858, says in reference to this part of its bearing:—

"If there be any *disease of the body* that produces any *distinguishable change in the mind*, as to any of its faculties, powers, or affections, whereby its efficiency to control itself is weakened or impaired to an extent that indicates the effect of disease, either generally or as respects any particular faculty, power, or affection, such a change, produced by such a cause, is unsoundness of mind, legally as well as psychologically. What the law requires to know, is simply the *fact* and the *extent* of such unsoundness, and its connection with a particular act; the psychologist and the moralist may go as much farther in their investigations as may be necessary to satisfy their special purposes of research. Now-a-days, questions of insanity are not passed upon by legal tribunals without a hearing of experts, or those assumed to be such. If an acknowledged expert will but testify directly, after a due and sufficient examination of the case of an alleged criminal, that

he is *insane*, it matters not whether the insanity manifests itself through the intellectual or through the moral faculties, it is still insanity in the eye of the law, and is entitled to the privileges and immunities of insanity, without splitting hairs betwixt north and northwest side to define the difference of one shade of insanity from another. The law must decide such matters in the rough; their niceties are beyond it. For all legal purposes, then, it seems idle to offer the special defence of *moral insanity*. The substantive term is sufficient without the adjective qualification; and the qualification, besides, is too shadowy, fluctuating, indefinable, and disputable, to be firmly grasped by the law, and fixed by that precise definition which is necessary to make a 'rule of action,' which the law is defined to be, and without which it cannot be law."

FEIGNED AND CONCEALED INSANITY.

Medical men, from the nature of their art, and their supposed acquaintance with every form of human ailment, are frequently summoned to examine individuals alleged or suspected to be insane, and are placed on the witness-stand to declare their professional opinion in the premises. The large majority of these cases are of a criminal nature, the subject of the investigation being usually in custody of the law, and the attendance of the physician may either be required by an order of court, or solicited by counsel.

It is a popular notion that the number of criminal causes giving rise to such demands upon medical science is rapidly and alarmingly on the increase. If there be real grounds for this impression, it may be assumed to indicate a growing appreciation both of a reasonable defence, when properly raised, and of experience and skill in an honorable profession, rather than as evincing growth of a prejudice already sufficiently formidable. In either case, it is to intelligent and conscientious physicians that medical jurisprudence must look for defenders against the shafts both of learned sophistry and of vulgar ignorance.

Unhappily, another idea, widely prevalent among intel-

ligent as well as illiterate classes, is far more serious in its influence, though unquestionably quite as erroneous. The public mind is alarmed by the conviction that insanity is frequently and easily feigned by offenders against public order, with design to escape the legal consequences of their crimes. But in truth, such attempts are rarely made with seriousness and persistence, and are then almost invariably detected. Some observation of the class of persons indicted, confirmed by the testimony of officials of public prisons, warrants the belief that most cases of simulated insanity occur among actual convicts, long habituated not only to crime, but to its penalties, who seek to deceive their custodians, rather with the hope of evading work than of attaining liberty. The usual routine of prison discipline soon proves, in most cases, a radical cure for this species of malingering. But these cases are not the source of the popular grievance, for they attain no wide notoriety. The bias referred to, affects parties awaiting or undergoing trial, and is occasioned, in fact, by the insane conduct of real lunatics, provoking primarily the oppression of jailers, and incidentally the distrust and denunciation of those whose views are liable to be influenced by prison officers. Yet it would be difficult for the complainants to point out instances of successful imposition upon juries, by which to substantiate their charge. And it might not be unjust to say, that the unwarrantable use of the plea of insanity as a defence is ascribable more to the false theories and imprudent zeal of counsel than to the simulations of the accused, and that physicians find it more difficult to remove the misconceptions of the former than to expose the clumsy and incongruous follies of the latter. Dr. Ray, in his valuable and comprehensive treatise on the Medical Jurisprudence of Insanity, 3d ed. p. 275, in commenting on this part of his subject, quotes a remark of that eminent jurist, Chief Justice Parker, of New Hampshire, as follows: "There are, undoubtedly, instances in which this kind of defence is attempted, from the mere conviction that nothing else can avail—cases in which the advocate forgets the high duty to which he is called, and excites a prejudice against others by attempt-

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ing to procure the escape of a criminal under this false pretence; but such are truly rare, and usually unsuccessful." (Charge to the grand jury of Merrimack County, N. H., 1838, quoted in *American Jurist*, vol. xx. p. 457.)

But when suspicion of simulating insanity attaches to a party, how is the question of reality or falsity of mental alienation to be solved? In very rare instances the pretender may possess powers of mimicry and of endurance which enable him to perplex, and probably to deceive, shrewd and experienced observers. Fortunately, however, the large majority of simulators have been found to participate in the prevailing ignorance on the subject, and erroneously to imagine extravagant mania and dementia to be the sole types of insanity. With this view, the simulator seeks to form in his mind a consistent plan of action, and then proceeds to enact the part of a maniac or idiot. In either case, he almost invariably oversteps the normal limit of the condition he would imitate, caricatures his part, and fails by excess of elaboration. Would he be thought a lunatic, he is noisy and incoherent, disorderly and destructive. But his ravings and restlessness are constrained and premeditated, and devoid of true emotional agitation. With angry grimaces and fantastic airs, he disowns and repels acquaintances, and denies all knowledge of occurrences perfectly familiar to him. He makes absurd and irresponsive replies to the questions addressed him, and in reading or talking utters disconnected words, entirely devoid of sense, instead of manifesting the appreciable though erratic ideas which flow from an insane mind.

The habits of insanity are travestied in the same manner. The simulator eats irregularly or voraciously, disarranges his clothes and bedding, and defiles his apartment and person. But these efforts are rarely protracted, and any doubt of their true character is ere long dispelled. The physical symptoms appropriate to such mental turmoil are absent throughout, and a vigilant watchfulness soon detects the natural effect of physical exertion in the exhaustion and sound sleep which rarely supervenes upon the boisterous exaltation of acute mania.

If the feigning prisoner would represent the *rôle* of dementia or idiocy, he plunges into the utmost degradation of fatuity. The natural history of true dementia, as already detailed, and the infantile origin of idiocy and imbecility, as contrasted with the brief existence of the case in view, must afford the basis of diagnosis.

When chronic or partial insanity is sought to be imitated, the uncertainty may be prolonged, and the skill of the physician, however great, may be sorely tried, perhaps baffled, by the ingenuity, alertness, and pertinacity of an accomplished mimic. Avoiding the mistake of obtuser intellects, this class do not proclaim themselves madmen by inviting attention to their extravagance or stupidity. But by a deportment generally tranquil, yet varied by occasional acts of eccentricity, and calculated rather to enlist the sympathy than to arouse the animosity of their guardians; by a habitual reserve which avoids offence and strengthens the effect of expressions indicating an abiding, but not conspicuous, delusion; and by artful manifestations of emotions not often exhibited openly by hardened criminals, these more gifted rogues sometimes outwit not only the civil and medical officers of the prison, but also the vigilance of experienced alienists.

In how few instances such success attends even these adepts in deception, the records of our large State hospitals for the insane can show. To these institutions have hitherto been consigned all persons acquitted of capital offences by reason of insanity, those who became insane in prison prior to trial, and those convicts who fall into mental disease of an active character during their term of imprisonment. Among the considerable number of such persons sent to different State lunatic asylums, there have been discovered comparatively few simulators; yet it is known that shrewd convicts include this mode of procedure among their devices for escape, contemplating, of course, a final elopement from the asylum.

By a report of Dr. John P. Gray, medical superintendent of the New York State Lunatic Asylum, at Utica, it appears that "during the period of eight years, from 1846 to 1854, sixty-seven convicts were transferred to the asylum from the

various State prisons. Of this number fourteen were found to be simulators, one of whom had been convicted of stabbing, five of burglary, and eight of grand larceny. All had long sentences to prison. Three of the number feigned mania, and the remaining eleven dementia. Of the fifty-three real cases of insanity, forty-one presented the form of dementia. Besides these convicts sent directly from prisons, eighty-six 'criminal and dangerous lunatics' had been sent to the asylum, by order of judges and justices, within a period of fifteen years. Among these were twelve simulators, ten of whom feigned dementia, and two mania."*

Rules for the detection of feigned insanity have been given by various writers; and Dr. Beck, in former editions of this work, has enumerated such as were supposed most important. The suddenness of the invasion, the subsidence of symptoms when the person thinks himself unnoticed, his willingness to be considered insane, the absence of prolonged sleeplessness, and the natural condition of the pulse, skin, and secretions, are mentioned as warranting suspicion of deceptive design. Comparisons with the previous history of the individual, the action of medicines and charges of falsification, with threats of punishment, are suggested as tests of sincerity. But each or all of these possess only a limited application, and no single test is to be relied on when the safety of the community and the assertion of public justice are involved in the result. It is in the congruity, or the inconsistency of all the facts of the case, viewed in the light of the present position of the party, which ought always to suggest to the medical witnesses the existence of a powerful inducement to simulation, that the elements of a reasonable judgment are to be found.

It behooves the physician to take adequate time to assure himself, beyond all reasonable doubt, before announcing an opinion before a public tribunal. Unless the evidence be conclusive to his own mind, he can neither aid the cause of justice nor shed lustre upon his profession by any other course than to reserve his judgment and confess his inability, thus far, to form a satisfactory opinion.

* Journal of Insanity, April, 1858, p. 331.

In expressing a judgment the witness must expect that the reasons which have led to it will be called for, either by court or counsel, and should be ready to furnish them, both for the enlightenment of the jury and as evincing appreciation of the seriousness of his own duty.

With every precaution against deceit, and the strongest determination to protect his own reputation and the general welfare, the physician will at times encounter cases of such obscurity as may successfully defy his sagacity for an indefinite period. Cases of this kind have been placed, by proper authority, in insane hospitals, for special observation, and after months of surveillance have still remained doubtful. In the "Psychological Medicine," of Drs. Bucknill and Tuke, the following interesting cases of this nature are recorded:—

Of the first, Dr. Bucknill remarks: "The simulator was, in his first attempt, successful in deceiving ourselves and other medical men. W. Warren was a notorious thief, indicted at the Devonshire assizes, 18—, for felony; previous conviction having been proved against him, he was sentenced to transportation for fourteen years. Two days after his trial he all at once become apparently insane; he constantly made howling noises, was filthy in his habits, and destroyed his bedding and clothing; he was, however, suspected of malingering, and was detained in jail three months. During part of this time it was found needful to keep him in a strait-waistcoat. At length, certificates of his insanity were forwarded to the Secretary of State, and he was ordered to be removed to the Devon County Asylum. On admission into this asylum, he was certainly very feeble and in weak health. He had an oppressed and stupid expression of face; he answered no questions, but muttered constantly to himself; he retained the same position for hours, either in a standing or sitting posture; he was not dirty in his habits; he appeared to be suffering from acute dementia. In three weeks' time he recovered bodily strength, and his mind became gradually clear. This change was too rapid not to suggest the idea of deception, but the previous symptoms of dementia had been so true to nature that we still thought the insanity might not have been feigned. For a period of eight

months he was well conducted and industrious, and showed no symptoms of insanity. At the end of that time he was returned to the jail, to undergo his sentence; and within one hour of his readmission within its portals he was apparently affected with a relapse of his mental disease. From this time, for a period of two years, this indomitable man persisted in simulating mental disease. He refused to answer all questions; walking to and fro in his cell, he constantly muttered to himself, and sometimes made howling noises which disturbed the quiet of the prison. At times he refused his food for days together. He occupied himself in beating at the door of his cell, or in turning his bedclothes over and over, as if looking for something. He had a very stupid expression of face; he slept soundly. For some months he was very filthy; this habit was cured by the governor of the prison ordering him to be put into a bath hot enough to be painful but not to scald; he jumped out of the bath with more energy than he had before shown, and thenceforth did not repeat his filthy practices. We visited him several times in prison, and expressed our positive opinion that his insanity was feigned. With the exception of uncleanly habits, he maintained all the symptoms of insanity which he had adopted for two whole years. His resolution then suddenly gave way; he acknowledged his deception, and requested Mr. Rose, the governor of the prison, to forward him as soon as might be to the government depot for convicts. In this remarkable case, the perseverance of the simulator, his refusal to converse or to answer questions, and the general truthfulness of his representation, made it most difficult to arrive at a decisive opinion. Still, the rapidity of his recovery in the first instance, and the suddenness of his relapse in the second, were inconsistent with the course of that form of insanity to which he presented so striking a resemblance. Our opinion, therefore, was formed upon a history of the case, and not upon any obvious inconsistency in the symptoms.

“Whether the following case was or was not one of simulation, cannot yet be known; the recapture of the convict may, perhaps, hereafter determine the question: John Jakes was convicted at the Devon Easter sessions, 1855, of pocket-pick-

ing; previous convictions having been proved, he was sentenced to four years penal servitude. On hearing the sentence he fell down in the dock, as if in a fit of apoplexy; when removed to the jail he was found to be hemiplegic, and apparently mindless. He, however, did some things which did not belong to dementia following apoplexy; for instance, he was designedly filthy, and even ate his own excrements. His insanity was certified by the surgeon of the jail, and by a second medical man, and he was removed to the asylum. Notwithstanding the medical certificates of his insanity, the convicting magistrates, who knew his character as a burglar and criminal of great ability, thought he was feigning. Warned by them, we examined him carefully. He had all the symptoms of hemiplegia; the toe dragged in walking, the uncertain grasp of the hand, a slight drawing of the features, the tongue thrust to the paralyzed side,—all these symptoms were present in a manner so true to nature that, if they were feigned, the representation was a consummate piece of acting, founded upon accurate observation. In the asylum, the patient was not dirty; he was tranquil, and apparently demented; he had to be fed, dressed and undressed, and to be led from place to place; he could not be made to speak; he slept well. On the night of the 17th of August, 1856, (more than a year after admission,) he effected his escape from the asylum in a manner that convinced the magistrates that their opinion of his simulation was just, and that he had succeeded in deceiving some four or five medical men. He converted the handle of a tin cup into a false key, wherewith he unlocked a window-guard; through the window he escaped, by night, into a garden; from thence he clambered over a door, eight feet high, and afterwards over a wall of the same height. He got clear away, probably joined his old associates, and has never been heard of since, (1858.) It is hard to say which is the least improbable, a representation of hemiplegia and dementia, so perfect as to deceive several medical men, forewarned against deception—or the escape of a paralytic patient by the means described. It must be remembered that the patient was an accomplished housebreaker, and that things impossible to other lunatics might have been accomplished by him."

The following case is taken from the note-book of the writer, having come under his personal observation:—

William R., alias Reed, aged twenty-three, was admitted into the New York State Lunatic Asylum, at Utica, July 11th, 1846, from the State Prison, in Clinton County, where he was undergoing a third imprisonment. He had always been an orderly, industrious prisoner, esteemed by the officers as a victim of vicious associates, rather than as a naturally bad man, and had, while working at silk-braiding in the prison, invented a machine which performed the labor of eighty men, and was regarded as very valuable.

The physician of the prison wrote, that "R.'s name does not appear upon the hospital record until last February, when he was attacked with violent congestion of the brain. The usual depletory and revulsive measures were employed, and although he was delirious for a day or two, he eventually recovered his usual health. In April he had a similar attack, but the same curative means were not equally successful, and he passed from violent delirium into a state of mental debility, which soon amounted to idiocy—speech, and indeed every faculty except those of mere animal existence, being suspended. The application of a large blister to his shaven scalp was followed by immediate improvement of his mental condition, until he gradually attained almost his usual intelligence. Since then he has been slowly relapsing into his present state, which is a singular imbecility of some faculties with remarkable exaltation of others. His moral feelings, his benevolence and conscientiousness, appear to be strongly excited. He resolves all his associates and officers into two different orders—the 'Venus Clansmen,' and the 'Pluto Clansmen:' the first ennobled by every virtue, and honored by all his sympathies of love and respect; the latter debased by every meanness, toward whom he exhibits a corresponding hatred and contempt. His intellectual faculties are considerably weakened and deranged."

There is a little seeming inconsistency between this last remark and the imagination indicated by the theory of the "clansmen;" but the above extract sufficiently shows that the medical and civil officers of the prison believed R. to be really insane, and not feigning.

In the asylum, he appeared, at first, listless and indifferent to everything except the habits of two domesticated weazels, which he brought with him from prison, and with which he played in the manner of an imbecile. His countenance had the relaxed expression of dementia or idiocy; the head dropped forward, the muscles relaxed, the lower lip and jaw pendent, and the saliva escaping from his mouth. But his eye, though slow in its motions, retained an intelligent look, and at times indicated more observation and interest than his general appearance would imply. At chapel he appeared inattentive to the services, but an occasional smile seemed significant of more intellectual activity than the meaningless one which usually rested on his features, and seemed the involuntary betrayal of a ready comprehension and a scoffing incredulity.

After a few weeks R. appeared to improve gradually; became more social with other patients, ate heartily, played checkers with skill, and whist with unusual ability. He wrote some verses, which, if original, had at least the merit of not being irrational; read books on engineering and mechanics, and appeared much improved in every way. He still talked of the clansmen, and asked if the "Venus Clansmen," the officers of the prison who brought him to the asylum, were soon coming back, saying that he wanted to go with them. Throughout the whole time he was readily submissive to the usages of the house, and though not spontaneously active, he fell, as it were mechanically, into the usual routine of the patients, and was never untidy, noisy, or disagreeable in his habits.

Twenty days after admission, R. eloped from the asylum. During the previous afternoon a closet in an attendant's room was broken open, and a screw-driver abstracted therefrom. Search for it was made in vain, and with it R. removed, on the following evening, the screws of an iron sash in the veranda opening from the hall, and escaped with another patient. It was subsequently ascertained that a third patient was concerned in the plot, but did not leave, as he had that day been told he would be discharged the same week. R., however, was considered the master-spirit.

Two months later, George H., formerly a fellow-prisoner with R., was admitted into the asylum, and within a fortnight stated that he had seen R. subsequent to the escape of the latter, and that R. "had told him he had been assured by Dr. Brigham, superintendent of the asylum, that the governor would pardon him when sufficiently restored, but that he concluded to save the governor some trouble." Such promise had been made to R., and it is thought that H. could not have learned it at the asylum. H. also asserts that R. was feigning insanity throughout, and had once told him in prison that such was his design, in order to be sent to the asylum, whence he could easily escape. This H. was of depraved character, and his statements of no value alone, but some circumstances seemed to verify them.

Nothing was heard of R. subsequently. Dr. A. Brigham, the medical superintendent of the asylum, was inclined to discredit H.'s representations, and to believe that R. had really suffered an attack of insanity, from which he was beginning to improve when brought to the asylum, and that his escape was a natural and rational termination of convalescence in a professional burglar.

The Gazette Medicale Lombarde reports the case of a young herdsman, seventeen years of age, who, having violated a child seven years old, killed her on the spot by a blow on the head. When arrested, he stated that he had been urged to the commission of the deed by the devil. On the day following his imprisonment, this youth, who was remarkable for his gayety and intelligence, was found in a state of almost complete imbecility, unable to make a single step without trembling and crouching down, his head bent forward and inclined to one side, his speech incoherent and stammering, not giving any connected answers to the questions put to him. He did not seem at all conscious of the fate that awaited him. Two physicians, MM. Windler and Zinck, declared the insanity feigned, upon the ground that they had never known such a form of the malady occurring suddenly at his age. The prisoner was subjected to the closest surveillance, but he was in everything consistent with his disease. Recourse was had to stratagem:

his couch was set on fire, water was unexpectedly poured upon him through the windows of his cell; but he remained impassive beyond faint inarticulate cries.

The physicians, nevertheless, persisted in their opinions. When put upon his trial, the prisoner answered no questions, seeming to doze, and preserved, throughout, the same impassableness. The jury found him guilty of the crime, but admitted his insanity in extenuation. He was condemned for three years to the house of detention. Returned to his cell, the prisoner, finding that he had escaped capital punishment, declared that he had been perfectly sane since his arrest, and that he had simulated idiocy at the suggestion of a fellow-prisoner.

There are few instances on record of feigned madness carried so far, or persisted in for so long a time under the circumstances.

Concealed Insanity. Attempts are sometimes made by insane persons in confinement, or deprived of the control of their property, to conceal their delusions or emotional perversions, for the purpose of recovering personal liberty, or other civil rights. These efforts must necessarily be rare, since the large majority of these unfortunates are unable to appreciate aright the relations existing between their mental infirmity and the legal disabilities to which it may subject them. But even if the individual comprehend this relation, his mental powers are generally too much impaired by disease to permit him to withstand successfully a protracted and ingenious examination. It now and then happens, however, that a patient confined in a lunatic hospital procures, by a writ of *habeas corpus*, a hearing before a magistrate, and obtains his discharge from custody despite the evidence of his persisting insanity given by the hospital physician. The discharge is not always based upon the non-existence of mental disorder, for, in the State of New York at least, the judge may make such disposition of the case as shall seem to him for the best interest of the petitioner. Remarkable instances of successful deceit practiced upon relatives, physicians, and courts, may be found in various treatises on medical jurisprudence. Each case, however, is

peculiar to itself, and does not necessarily afford a guide for the investigation of others. Indeed, it may be said with truth, that in too many instances in which the question of concealed insanity assumes practical importance, the existence of mental disease is quite disregarded, the result being determined by the sympathies or psychological theories of the magistrate, rather than by the facts of the case. It may be, however, that, as a general rule, this mode of decision is, on the whole, the safest, since the court is perhaps the only party wholly disinterested; but lamentable consequences have sometimes ensued.

The decisions of New York courts competent to the disposal of the persons of lunatics are certainly not regarded as final and impregnable as against process by *habeas corpus*, except when a commission *de lunatico inquirendo* has previously issued, and a jury has found the party insane. In such cases, applications for the vacation of the commission, or for superseding an order of guardianship, as demanding a revision of a serious proceeding, are more discreetly considered, and must be based upon satisfactory affidavits of restoration to mental health.

A common and very proper usage of courts in this State, when representations are made of alleged improper restraint of supposed lunatics, is to send the case to a referee, who hears and notes the evidence on both sides, and who may examine the party himself, or appoint medical men for this purpose, subsequently reporting the whole, with his opinion and recommendations for the revision and decision of the court. With such opportunity for arriving at a satisfactory knowledge of the person's mental condition and fitness to enjoy all his civil rights, there is but little risk of injustice to any interest.

In cases of suspected concealment of insanity, the medical witness should, as in those of simulation, claim the fullest latitude of examination, remembering that acute lunatics, under the pressure of powerful motives, may, for a time, withhold and even deny delusions susceptible of the fullest proof; and that some insane persons betray their alienation, unequivocally.

cally, in their letters, while in conversation they manage, by adroit explanations and half-admissions, accompanied by plausible ridicule of their former follies, to impress observers with the belief of their recovery. Others may write methodical and rational letters, well calculated to convince even those who had known them best, of their present mental integrity, while their acts and conversation betray unequivocal evidence of insanity. It is important to remember, in some cases, that the mental condition of certain lunatics varies considerably at different times. Cases of intermittent insanity are common in all hospitals for deranged persons, the intermission being, perhaps, free from other impairment of the faculties, save general feebleness or inactivity. A few patients change decidedly from day to night; their hallucinations of vision and hearing being chiefly active during the darkness, causing them great agitation of feeling, but disappearing with returning light, which enables them in a great measure to correct their misconceptions. Such cases are not likely to become subjects of legal inquiry from attempted concealment of insanity, but they may occur in persons under arrest, and thus provoke indignation, rather than dispassionate investigation, by arousing suspicions of simulation. There is still another class of cases, in which, though there exists neither inducement nor disposition to conceal the existence of actual insanity, the detection of this malady becomes highly important. The following case, borrowed by Dr. Beck from Halford's Essays, p. 47, well exemplifies this class:—

“A gentleman sent for his solicitor and gave him instructions for his will, telling him he would make him his heir. He soon after became deranged, and was attended by Sir Henry Halford and Sir George Tuthill. After a month's violence he was composed and comfortable, but extremely weak, and manifested great anxiety to make his will. This request was at last consented to. The solicitor received the same instructions, drew the will, and it was signed by the physicians as witnesses. They inquired at the time of executing it, whether such was his intentions, and to each and every question he answered affirmatively. After leaving the room, and con-

versing on the delicacy of their situation, the physicians returned and questioned the patient as to the disposition of his property. He recited the legacies correctly, but being asked to whom the real estate was to go, he answered, 'to the heir-at-law, to be sure.' "

The subject of the following case, after being for several months under the care of the writer, was transferred to another institution, with the hope that change of treatment and association might prove restorative. Her superior talents and accomplishments won the ready sympathy of the matron of her new abode, and her plausible narrative soon induced the same officer to bring her in communication with legal counsel, unknown to the physician of the institution. By writ of *habeas corpus*, an investigation was had, the lady being placed, pending it, in the private charge of her new friends. Throughout two meetings the patient appeared rational and composed; but the N. Y. Times, and other papers, of January 18, 1857, contain the following report: "Supreme Court, Special Term, before Judge Ingraham. *In the matter of L. W., an alleged lunatic, on habeas corpus.* This case was to have been continued at 3 P.M., yesterday, but owing to the conduct of the lady since the adjournment of the hearing, it was postponed to Wednesday next, and virtually abandoned by the parties seeking her release. From the time of the adjournment on Friday, until her production in the court yesterday, Miss W., had been in the custody of the former matron of the asylum, (now suspended,) and of Mr. —, the petitioner. On Sunday they accompanied her to church, and she appeared to them sane until evening, when the correctness of Dr. Lansing's opinion began to appear. Her remarks were not consistent with the idea of her sanity, and from that time she continued to talk and act in such a manner as to leave no doubt, even in the minds of her custodians, of her insanity. For instance, she charged Mr. —, who sued out the writ of *habeas corpus*, with dishonorable conduct or intentions, and firmly believed those who had caused her to be taken before the court, with a view to obtain her release, were trying to destroy her by administering poison with her food. In court

she talked in the same manner. It was the intention of her relatives to produce witnesses who could testify to her mental derangement; but the evidence of her own language and manner were considered quite sufficient by all parties concerned, and she was remanded to the care of Dr. Lansing."

It is pretty clear that had this case been disposed of by the court as summarily as have similar ones within the cognizance of the writer, the result would have been as deplorable for the patient as it proved in the others. Happily, the subject of the above case is said by her family to have entirely recovered a few months after this occurrence.

The cases of concealed insanity, derived by Dr. Beck from Dr. Haslam and Lord Erskine, are still among the most remarkable on record, and deserved preservation in the successive editions of his work. Before inserting them, the present annotator closes his contributions to this chapter. He had intended to append to Dr. Beck's cases, illustrative of the criminal jurisprudence of insanity, notices of certain important trials of later date. But the space already occupied forbids, and inasmuch as the rulings and practices of courts, not only in the different States, but in the same Commonwealth, still vary with almost every trial, it would be impossible to give a comprehensive view of present usages in this important department of jurisprudence. Moreover, to the physician special cases are of minor interest to general principles, and both physician and jurist know where to seek them if wanted.

The invaluable work of Dr. Ray, which is equally creditable to the author and to our country, will be found the very type of excellence as a text-book; and the American Journal of Insanity, a complete repertory of all the most interesting cases of mental alienation which have engaged the attention of our courts during the period of its publication. The comprehensive treatise of Messrs. Wharton and Stillé is also a valuable compend of the *causes célèbres* falling within its purview.—D. T. B.]

"An Essex farmer, about the middle age," says Haslam, "had, on one occasion, so completely masked his disorder, that I was induced to suppose him well, when he was quite

otherwise. He had not been at home many hours, before his derangement was discernible by all those who came to congratulate him on the recovery of his reason. His impetuosity and mischievous disposition daily increasing, he was sent to a private mad-house, there being, at that time, no vacancy in the hospital. Almost from the moment of his confinement he became tranquil and orderly, but remonstrated on the injustice of his seclusion.

“Having once deceived me, he wished much that my opinion should be taken respecting the state of his intellects, and assured his friends that he would submit to my determination. I had taken care to be well prepared for this interview, by obtaining an accurate account of the manner in which he had conducted himself. At this examination, he managed himself with admirable address. He spoke of the treatment he had received from the persons under whose care he was then placed as most kind and fatherly; he also expressed himself as particularly fortunate in being under my care, and bestowed many handsome compliments on my skill in treating this disorder, and expatiated on my sagacity in perceiving the slightest tinges of insanity. When I wished him to explain certain parts of his conduct, and particularly some extravagant opinions respecting certain persons and circumstances, he disclaimed all knowledge of such circumstances, and felt himself hurt that my mind should have been poisoned so much to his prejudice. He displayed equal subtlety on three other occasions when I visited him; although by protracting the conversation, he let fall sufficient to satisfy my mind that he was a madman. In a short time he was removed to the hospital, where he expressed great satisfaction in being under my inspection. The private mad-house which he had formerly so much commended, now became the subject of severe animadversion; he said that he had there been treated with extreme cruelty; that he had been nearly starved, and eaten up by vermin of various descriptions. On inquiring of some convalescent patients, I found, as I had suspected, that I was as much the subject of abuse, when absent, as any of his supposed enemies; although to my face his conduct was courteous

and respectful. More than a month had elapsed since his admission into the hospital, before he pressed me for my opinion; probably confiding in his address, and hoping to deceive me. At length he appealed to my decision, and urged the correctness of his conduct during confinement as an argument for his liberation. But when I informed him of circumstances he supposed me unacquainted with, and assured him he was a proper subject for the asylum which he then inhabited, he suddenly poured forth a torrent of abuse; talked in the most incoherent manner; insisted on the truth of what he had formerly denied; breathed vengeance against his family and friends, and became so outrageous that it was necessary to order him to be strictly confined. He continued in a state of unceasing fury for more than fifteen months.”*

Lord Erskine, in his celebrated speech for James Hadfield, mentions two cases which are striking and instructive.

“I examined,” says he, “for the greater part of the day, in this very place, (the Court of King’s Bench,) an unfortunate gentleman, who had indicted a most affectionate brother, together with the keeper of a mad-house at Hoxton, for having imprisoned him as a lunatic, while, according to his own evidence, he was in his perfect senses. I was, unfortunately, not instructed in what his lunacy consisted, although my instructions left me no doubt of the fact; but not having the clue, he completely foiled me in every attempt to expose his infirmity. You may believe that I left no means unemployed, which long experience dictated, but without the smallest effect. The day was wasted, and the prosecutor, by the most affecting history of unmerited suffering, appeared to the judge and jury, and to a humane English audience, as the victim of a most unwonted oppression; at last, Dr. Sims came into court, who had been prevented by business from an earlier attendance. From him I soon learned that the very man whom I had been above an hour examining, and with every possible effort which counsel are in the habit of exerting, believed himself to be the *Lord and Saviour of mankind*, not

* Haslam on Madness, p. 53.

merely *at the time of his confinement*, which was alone necessary for my defence, but *during the whole time*; he had been *triumphing over every attempt to surprise him, in the concealment of his disease*. I then affected to lament the indecency of my ignorant examination, when he expressed his forgiveness and said, with the utmost gravity and emphasis, in the face of the whole court, 'I AM THE CHRIST;' and so the cause ended."

The other statement he derived from Lord Mansfield, who tried the cause.

"A man of the name of Wood, had indicted Dr. Monro for keeping him as a prisoner when he was sane. He underwent the most severe examination by the defendant's counsel, without exposing his complaint; but Dr. Battie having come upon the bench by me, and having desired me to ask him what was become of the PRINCESS, with whom he had corresponded in cherry-juice, he showed in a moment what he was. He answered that there was nothing at all in that, because having been (as everybody knew) imprisoned in a high tower, and being debarred the use of ink, he had no other means of correspondence but writing his letters in cherry-juice, and throwing them into the river which surrounded the tower, where the Princess received them in a boat. There existed, of course, no tower, no imprisonment, no writing in cherry-juice, no river, no boat, but the whole was the inveterate phantom of a morbid imagination. I immediately," continued Lord Mansfield, "directed Dr. Monro to be acquitted; but this man Wood, being a merchant in Philpot-lane, and having been carried through the city on his way to the mad-house, indicted Dr. Monro over again, for the trespass and imprisonment in London, knowing that he had lost his cause by speaking of the Princess at Westminster; and such," said Lord Mansfield, "is the extraordinary subtlety and cunning of madmen, that when he was cross-examined on the trial in London, as he had successively been before, in order to expose his madness, all the ingenuity of the bar, and all the authority of the court, could not make him say a single syllable upon that topic, which had put an end to the indictment before, although he

had still the same indelible impression upon his mind, as he had signified to those who were near him; but conscious that the delusion had occasioned his defeat at Westminster, he obstinately persisted in holding it back.”*

III. *Of the legal definition of a state of mental alienation, and the adjudications under it.*

In this section I propose to confine myself to such parts as it is important for a physician to be acquainted with, in his capacity as a witness.

The common law of England on the subject before us is thus expounded by Blackstone:—

“An idiot or natural fool,” says he, “is one that hath no understanding from his nativity, and therefore is by law presumed as never likely to obtain any.” But a man is not an idiot, if he hath any glimmering of reason, so that he can tell his parents, his age, or the like common matters.† Over individuals of this description the king is appointed guardian, and the lord chancellor acts, under his authority, as the conservator of their property. He also is to provide for them, and at their death render their estates to their heirs.

[For the matter of the subjoined note, I am indebted to my learned friend Judge Hoffman, of the N. Y. superior court.

The custody of lunatics was not (in England) vested in the court of chancery *as such*. It was lodged in the crown. That branch of the prerogative might be exercised by any officer the king thought fit. It was ordinarily delegated to a

* This evidence at Westminster was then proved against him by the shorthand writer. Lord Eldon, since he has been lord chancellor, has mentioned from the bench a case which occurred to him while at the bar, also illustrative of the difficulty that occurs in such cases. After repeated conferences and much conversation with a lunatic, he was persuaded of the soundness of his understanding, and prevailed on Lord Thurlow to supersede the commission. The lunatic, however, immediately afterwards, calling on his counsel to thank him for his exertions, convinced him, in five minutes, that the worst thing that he could have done for his client was to get rid of the commission. (Vesey Junior's Reports, vol. xi. p. 11; *ex parte* Holyland.)

† Blackstone's Commentaries, vol. i. pp. 302, 304.

great officer of state, but not necessarily to the keeper of the great seal. A warrant, under the sign manual, was usually delivered to the lord chancellor or the lord keeper, on his coming into office.*

But the right of the crown to the management and control of lunatics and their estates, did not commence until the finding of the inquisition of lunacy. The method of ascertaining whether the party were a lunatic, was a petition to the lord chancellor, suggesting the lunacy, and verified by affidavits. This application is made to the chancellor, not as chancellor, but as the person having, under the especial warrant of the crown, the right to exercise the duty of the crown to take care of those who cannot take care of themselves.

"The truth is," says Mr. Justice Story, "that the lord chancellor acts merely as the delegate of the crown, and exercises its personal prerogative as *parens patriæ* in chancery, but not as a court of equity."

At the Revolution, the people succeeded to all the duties and prerogatives of the crown, and at a very early period they delegated their authority in this matter to the chancellor. The successive statutes that were passed upon this subject were substitutes for the king's sign manual to each lord chancellor or lord keeper.

It is upon this basis that the jurisdiction in our State is most clearly and most safely vested, and the express delegation of the authority of the State, as to the custody of the persons and estates of lunatics, involves the right of judicially ascertaining who are such.

Under the constitution of 1846, the powers which were reposed in the chancellor of State are now vested in the judges of the supreme court in their several districts.—
C. R. G.]†

"A *lunatic*, or *non compos mentis*, is one who hath had understanding, but by disease, grief, or other accident, hath lost the use of his reason. A lunatic is indeed properly one that hath *lucid intervals*; sometimes enjoying his senses, and sometimes not, and *that frequently depending upon the change of the*

* Shelford on Lunacy, p. 157.

† See 4 Duer, p. 613.

moon. But under the general name of *non compos mentis*, (which Sir Edward Coke says is the most legal name,) are comprised not only lunatics, but persons under phrensies, or who lose their intellects by disease; those that *grow* deaf, dumb, and blind, not being *born* so; or such, in short, as are judged by the court of chancery incapable of conducting their own affairs."* Over such the crown is also guardian, but in a different manner, as the law supposes that these accidental misfortunes may be removed, and therefore he or his special delegate, the lord chancellor, acts only as a trustee, and preserves the property for the use of the insane person until he be restored to reason.

Of late years, however, a new term has been introduced in legal adjudications, and it is important to trace its origin, and, if possible, to fix its meaning. I refer to the phrase *unsoundness of mind*.

Lord Chancellor Eldon was, I believe, the first who gave it a distinct place among the legal varieties of mental alienation, and the question of its existence has been a fruitful source of litigation. To appreciate the changes occasioned by its introduction, it will be sufficient to refer to the opinions of various chancellors of England. Lord Hardwicke held that unsoundness of mind imported not weakness of understanding, but a total deprivation of sense. It was thus equivalent to the term insanity.† Lord Eldon, however, says: "Of late, the question has not been whether the party is insane, but the court has thought itself authorized to issue the commission *de lunatico inquirendo*, provided it is made out that the party is unable to act with any proper and provident management, liable to be robbed by any one; under *imbecility of mind*, not strictly insanity, but as to the mischief, calling for as much protection as actual insanity."‡ And this opinion, according to the commentary of Mr. Shelford, imports that the party is in *some such state of mind as is contradistinguished from*

* Blackstone, vol. i. p. 304.

† He deemed it equivalent to the term *non compos mentis*, and said that by unsound mind must be understood a depravity of reason, or want of it, and not mere weakness of mind.

‡ 8 Vesey Junior's Reports, p. 67; *Ridgway v. Darwin*.

idiocy and from lunacy, and yet such as makes him a proper subject of a commission. All the cases decide that mere imbecility will not do, and that incapacity to manage affairs will not do, unless such imbecility and such incapacity amount to evidence that the party is of unsound mind, and the jury find him to be so.*

In a subsequent case, the attempt of a jury to specify the conditions that in their opinion constituted the unsoundness of mind, was defeated. Their verdict was, "that the party was not a lunatic, but, partly from paralysis and partly from old age, his memory was so much impaired as to render him incompetent to the management of his affairs, and consequently that he was of unsound mind, and had been so for two years."† Lord Lyndhurst quashed this inquisition, and ordered a second commission, which found the person to be of unsound mind.‡

As to what is the legal acceptance of this term, I will quote the sentiments of an eminent barrister, Mr. Amos, late Professor of Medical Jurisprudence in the University of London: "This state of unsoundness of mind, in the legal sense of the present day, is perhaps not very easy to define; for it is neither lunacy, idiocy, imbecility, or incompetency to manage a person's own affairs. And yet we have seen that an inquisition finding a person unfit to manage his own affairs, and therefore not sound of mind, has been found bad. The term unsoundness of mind, therefore, in the legal sense, seems to involve the idea of a morbid condition of intellect or loss of reason, coupled with an incompetency of the person to manage his own affairs." And again: "*Soundness of mind* is a legal term, the definition of which has varied, and cannot, even

* Shelford, p. 87.

† 4 Russel's Chancery Reports, p. 182. *In re Holmes*. The Rev. Mr. Holmes was seventy-seven years old. Two medical men, (Drs. Pennington and Arnold,) who had examined and conversed with him, considered him in a state of dementia, denoted by decay of the thinking faculty—mental imbecility and great want of memory, and they deemed him unfit for the management of his pecuniary affairs. It was on this testimony that the first verdict was rendered. (*Medico-Chirurgical Review*, vol. xii. p. 244.)

‡ A legal friend has suggested to me that probably Lord Lyndhurst's objection was to the argumentative nature of the verdict.

in the present day, be stated with anything like scientific precision.”*

Mr. Shelford, the author of a recent very elaborate treatise on the law of lunatics, makes the following observations: “It is to be lamented that the original meaning of the term ‘unsound mind’ should have been departed from, and that so much uncertainty and latitude should have been given to it, as are implied by the words of Lord Eldon. For if unsound mind does not mean a deprivation of reason, but a degree of weakness, and the crown can issue commissions to try whether a party be of sufficient understanding to manage himself and his affairs, that is such a vague and uncertain ground for inquiry, as will open a door to invade the liberty of the subject and the rights of property.”†

Notwithstanding these objections by gentlemen of the bar, the term remains a part of the English law, and is already naturalized into our own jurisprudence. In the Revised Statutes of the State of New York, it is enacted that the judges of the supreme court shall have the care and custody of all idiots, lunatics, *persons of unsound mind*, and habitual drunkards.‡ Again, it is ordained that every person capable of holding land, except idiots, *persons of unsound mind*, and infants, may alienate it.§ It is, therefore, of great import-

* London Medical Gazette, vol. viii. pp. 419, 421.

† Shelford, p. 5. Mr. Stock, a late English legal writer on insanity, fully concurs in the difficulty produced by the introduction of this term, and entitles his treatise “On the Law of *Non Compos Mentis*.”

‡ Revised Statutes, vol. i. p. 52. It is also in use in Pennsylvania. Ashmead’s Reports, p. 82. In the matter of O’Brien, a lunatic. In Illinois and New Hampshire, the term “*distracted person*” is used in their statutes to express the state of insanity. (Revised Laws of Illinois, 1833, p. 332; Digested Laws of New Hampshire, 1830, p. 339.)

§ Revised Statutes, vol. i. p. 719. Before these distinct enactments, it would not appear to have been entertained by our courts. In *Jackson ex dem. Caldwell v. King*, the supreme court said that idiots, lunatics, or persons *non compos*, are alone persons incapable of contracting; and of such alone, till, since the Revolution, did even the court of chancery entertain jurisdiction. “It does not follow that, because, according to the modern doctrine of the court of chancery, one would be the proper subject of a commission in nature of a writ *de lunatico inquirendo*, that his acts are void or voidable in a court of law.” (Cowen’s Reports, vol. iv. p. 207.)

ance that medical men and lawyers should agree on some definite meaning to be applied to it, and I know none better than that suggested in the following extract. It is deduced from the current of decisions.

After remarking that the terms insanity, lunacy, unsoundness of mind, and imbecility are employed under very different acceptations, by lawyers, physicians, and medical writers, the critic continues: "And in consequence, witnesses have often seemed to differ widely from each other in their evidence, when in fact the chief difference between them consisted in the meaning that each attached to the vague and unscientific terms sanctioned by the practice of the courts. These inconveniences have been abundantly felt on many recent occasions, and appear, in particular, to have been the origin of the chief difficulties experienced in the late Portsmouth case. In defence of our medical brethren, and in justification of the awkward appearances they have made, we may safely maintain that the source of confusion does not lie with them. This has been clearly shown, we think, in a letter addressed a few months ago, by Dr. Haslam to the lord chancellor, on account of certain opinions lately expressed by his lordship, with regard to the different states of mind which may justify the issuing of a commission of lunacy. His lordship seems to hold that there are three such states—idiocy, lunacy, and unsoundness of mind. The meaning of the term *Idiocy* can never be mistaken. The word *Lunacy* has also a definite meaning, different from that in which it was originally used, and now comprehends all those who have once been sound in mind, and who still possess the power of reasoning, though on imaginary or false principles. But as to the term *Unsoundness of mind*, as contradistinguished from lunacy on the one hand and from idiocy on the other, we confess that, like Dr. Haslam, we are unable to form a clear conception of it. 'Whatever,' says the chancellor, 'may be the degree of weakness or imbecility of the party to manage his own affairs, if the finding of the jury is only that he was of an extreme imbecility of mind, that he has an imbecility to manage his own affairs, if they will not proceed to infer from *that*, in their

finding upon oath, that he is of unsound mind, they have not established, by the result of their inquiry, a case in which the chancellor can make a grant constituting a committee, either of the person or of the estate. All the cases decide that mere imbecility will not do, unless that imbecility and that incapacity to manage his affairs amount to evidence that he is of unsound mind, and he must be found to be so.' On carefully considering these expressions, we imagine this *unsoundness of mind* to be nothing else, in strict language, than *imbecility, amounting to an inability to manage one's affairs*, a state which is precisely a minor degree of idiocy, and need not be distinguished from it, except as a mere variety."*

"It is satisfactory," says a late English writer, "to be able to add that a recent enactment has put an end to much of the ambiguity which thus prevailed respecting weakness of intellect. The statute, William IV., chap. 60, relative to trustees and mortgagees, has introduced a power to issue a commission of lunacy in all cases where an individual is '*incapable of managing his affairs*,' although he be neither proved to be an idiot or a lunatic."†

The methods of proving a person an idiot or non compos, or of unsound mind, are, in every important particular, alike. But in the first, a writ is issued to inquire into the state of the person's mind, and the question of idiocy is tried before the escheator or sheriff, by a jury of twelve men; while the two last have, of late years, been examined by a commission, in the nature of the writ *de idiota inquirendo*, and a jury is summoned by the persons appointed commissioners.‡ If the result of the commission be a return that the individual is a

* Edinburgh Medical and Surgical Journal, vol. xix. p. 612. Dr. Morrison (2d edition, p. 28) presents the following definitions: "*Unsound mind* sufficient to excuse the commission of crime, is marked by delusion—confounds ideas of imagination with those of reality—those of reflection with those of sensation—and mistakes the one for the other. *A weak mind* differs from a strong one in the extent and power of its faculties; but unless there be delusion, it is not considered unsound." These, however, it must be recollected, are *medical* definitions, and differ widely from the meaning of the terms in legal parlance.

† Dr. William Cummin, London Med. Gazette, vol. xix. p. 884.

‡ Highmore on the Law of Idiocy and Lunacy, pp. 20, 21.

lunatic, he is then committed to the care of tutors or guardians, who are styled his *committee*.

Should the individual recover, the chancellor must be petitioned to supersede the commission; and on hearing of this, the individual should attend, that he may be inspected in person; and it is also usual for the physician to attend, or to make an affidavit *that he is perfectly recovered*.*

In cases of this description, (civil as contradistinguished from criminal ones,) the important question, as has been well stated by Dr. Conolly, for the physician to decide is, *whether or not the departure from sound mind be of a nature to justify the confinement of the individual, or the imposition of restraint upon him as regards the use or disposal of his property?*† This is the point on which the reputation of many physicians has, of late years, been nearly wrecked. I will mention one or two cases that have excited great attention in England, and which are well worthy of consideration.

Edward Davies was born in low circumstances, and had an extremely imperfect education. He was noticed at school as being very shy of his companions, but was not considered stupid. He commenced business as a tea-dealer, and by industry and attention to his business, acquired property; but his early habits continued, and he was so habitually anxious and nervous, that the night before the great tea sales at the India House, he could not sleep. He was subject to dyspepsia, and even inclined to hypochondriasis. Finding himself also deficient in education, he endeavored to acquire information by reading what he took to be the best authors, and, as is natural with such persons, was very vain of showing off his late acquisitions, particularly in the way of spouting.

It appears that his mother, even at his advanced period of life, (twenty-seven years,) exercised a complete sway over him. She would not allow him to carry any money in his pocket,

* Highmore, p. 73.

† Or, to put it in another point of view, the physician and the jury are "to determine, not the mere existence of a mental affection, but the limit at which that affection begins to deprive the individual of the power of proper self-direction; and at which, therefore, it becomes the duty of the law, and of the friends, to step in for his protection." (Medico-Chirurgical Review, vol. xvi. p. 512.)

nor to spend the most trifling sum without her advice and permission. He dared not go to the play, or leave the house for a few hours, without asking her consent; and indeed she turned him out of his shop if he displeased her. Foreseeing that if he married, she would be displaced from the management of his house and concerns, she prevented him from seeing young females.

He made many attempts to emancipate himself from this control, by offering large sums of money if she would leave him; but they were all rejected. His health became more and more affected; and Mr. Lawrence, to whom he applied for advice, found his look wild and his manner hurried. He used much gesticulation, and expressed a strong antipathy to his mother and several relations, whom he supposed were combining against him. Mr. Lawrence considered him of unsound mind, but that the antipathy to his mother was the chief delusion. The disease would be removed if he could be reconciled to her.

About this time his mother placed him under the care of Dr. Burrows, against whom it appears he entertained a strong aversion. He now consulted Dr. Latham on the subject of his supposed insanity. In the conversation with that physician, he used much gesticulation and theatrical gestures; was apprehensive that any one should hear the narrative; spoke of his wealth, and occasionally quoted Byron and Shakspeare. He repeatedly insisted on Dr. Latham's opinion whether he was insane, and threatened vengeance if he did so think. Dr. Latham was inclined, from this interview, to doubt his sanity.

Mr. Davies shortly after left his house and lodged at an inn, where his appearance was wild, and he awoke the servant in the night, with an idea that there were thieves in the house. He was, however, soon reassured, and went to sleep.

He was soon after confined in a private mad-house, and this confinement led to an application for his release. Several physicians examined him, (Sir George Tuthill, Dr. Monro, Dr. Macmichael, and Dr. Sutherland;) and the majority being of opinion that he was of unsound mind, the chancellor granted a commission.

The testimony adduced was principally what has been already stated. The state of his affections was much dwelt on as a proof; so also his having purchased some property at an extravagant rate. He expressed much indignation at his confinement, but was calm and correct in his conversation. It turned out on the trial before the commission, that at the very time when he was about being confined, he gave directions as to his business, and was indeed consulted by the very persons engaged in the application relative to the conduct of that business. The result of the commission was, that Mr. Davies was restored to his liberty and property.

It is well remarked by the author from whom I am quoting, (and who I believe was Dr. Gooch,) that Davies was always, and probably would continue to be, what we usually call a man of weak mind; but he had capacity sufficient for making money; was inoffensive in his habits, although eccentric, and absolutely indulged in no delusion, unless antipathy to his mother's government was so considered, which, if his history had been properly inquired into, it never would have been. The important rule evidently deducible from the whole, is to ascertain the person's natural character, and to reason from that as to deviations.* "The true standard," says Sir A. Coombe, "is the patient's own natural character, and not that of the physician or the philosopher. It is the prolonged departure, without an adequate external cause, from the state of feeling and modes of thinking usual to the individual, when in health, that is the true feature of disordered mind."

[From an examination of the testimony in this case, I confess myself unable to see that Dr. Gooch was *too* severe. One of these doctors thought Davies insane because he spoke indignantly of the way he had been treated by his family; also, because he learned to box, and bought a fowl for ten shillings, and said "that he could weep over his little rabbits." Another,

* Quarterly Review, vol. xlii. p. 345. The observations of Dr. Gooch on the testimony of some of the medical witnesses are frequently too severe. They could only judge from what they witnessed; and though we may recognize the correctness of the abstract principle, that they should have thoroughly informed themselves, yet this is more easily recommended than accomplished.

because he would not admit that he was insane, and because he had bought an estate for 6000 guineas, which the doctor deemed unsuitable to his circumstances, though he (the doctor) did not know what those circumstances were! Another thought Davies insane, from his manner of complaining of the dirty habits of the keepers! Now, if it was not easy thoroughly to inform themselves, it certainly was very easy to say that they were not sufficiently informed to give an opinion.—C. R. G.]

Miss Bagster, a young lady of fortune, ran away, in 1832, with Mr. Newton. An application was made by her family to dissolve the marriage, on the ground that she was of unsound mind. The facts urged against her before the commissioners were, that she had been a violent, self-willed, and passionate child; that this continued as she grew up; that she was totally ignorant of arithmetic, and therefore incapable of taking care of her property; that she had evinced a great fondness for matrimony, having engaged herself to several persons, and that, in many respects, she evinced little of the delicacy becoming her sex. Dr. Sutherland had visited her four times, and came to the conclusion that she was incapable of taking care of herself or of her property. She had memory, but neither judgment or reasoning power. Dr. Gordon did not consider her capacity to exceed that of a child of seven years of age. Several non-medical witnesses who had known her from infancy, spoke of her extremely passionate, and occasionally indelicate conduct. On her examination, however, before the commissioners, her answers were pertinent and in a proper manner. No indelicate remark escaped from her. Drs. Morrison and Haslam had both visited her, and were not disposed to consider her imbecile or idiotic. She confessed and lamented her ignorance of arithmetic, but said that her grandfather sent excuses when she was at school, and begged that she might not be pressed. Her conversation generally impressed these gentlemen in a favorable manner as to her sanity.

The jury brought in a verdict that Miss Bagster had been of unsound mind since November 1, 1830, and the marriage was consequently dissolved.

However little we may be disposed to sympathize with Mr. Newton, this certainly would seem to be a hard decision against the female. With a neglected education, indulged in every wish, and growing up under the combined effects of these, she is persuaded to elope with a person highly offensive to her mother; and, in order to dissolve the connection, the whole history of her life is ransacked for inconsistencies and improprieties. Dr. Morrison said, under oath, that he would undertake, in six months, to teach her arithmetic and the use of money. "A deficiency of education," he said, "would account for all the appearances observed in Miss Bagster."*

From the above statement, an idea may be formed of the principles and practice of English law relative to the insane in *civil cases*.† I come now to notice such as are in force in CRIMINAL ONES.

Insanity or idiotism excuses an individual from the guilt of crimes, and he is not chargeable for his own acts, if committed when under these incapacities. "And if a man in his sound memory commits a capital offence, and before arraignment for it he becomes mad, he shall not be tried; if after he be

* London Medical Gazette, vol. x. pp. 519, 553; London Atlas, (newspaper,) July 8 and 15, 1832.

In the suit for the dissolution of the marriage of the Earl of Portsmouth, on the ground that he was of *weak*, and afterwards of *unsound* mind, it was proved that his servants were his playfellows; that he was fond of driving carts loaded with dung or hay; that he was occasionally extremely cruel to his horses and his domestics—breaking the leg of his coachman, who was lying with it already broken. He had a great desire to bleed persons, carrying lancets with him—would follow funerals, etc.

The commission found him of unsound mind, and the marriage was subsequently dissolved. (Haggard's Ecclesiastical Reports, vol. i. p. 355.)

† In Scotland, besides the usual provisions as to lunatics and idiots, a legal restraint may be laid on those who, by imbecility or weakness of judgment, are considered as fit subjects for it. This is called an *interdiction*, and when under its operation, they are disabled from disposing of their property without the consent of curators. An interesting case of alleged idiocy, but probably coming under the above description, was recently agitated in Scotland.

See Mr. Colquhoun's Report of Proceedings. *Duncan v. Yoolow*. (Edinburgh Med. and Surg. Journal, vol. xlix. p. 530.)

tried and found guilty, he loses his senses before judgment, judgment shall not be pronounced; and if after judgment he becomes of non-sane memory, execution shall be stayed. If there be any doubt whether the person be *compos* or not, this shall be tried by a jury. And if he be so found, a total idiocy, or absolute insanity, excuses from the guilt, and of course from the punishment of any criminal action committed under such deprivation of the senses: *but if a lunatic hath lucid intervals of understanding, he shall answer for what he does in those intervals, as if he had no deficiency.*"*

The French law makes similar provisions. "It is neither a crime or an offence, if the accused was in a state of insanity (*démence*) at the time of committing the action."† And even in the remaining particulars it is practically the same. In the case of a person who had committed murder and afterwards became insane, the judgment was suspended indefinitely. The procureur-general stated that, although this principle was not expressly adopted in the French code, yet it was contained in the 70th article of a *projet* of a criminal code, submitted for discussion in 1804, and that this justified the course adopted.‡

The law at present in force in the State of New York is similar in most particulars to the English. The [judges] have the care, and provide for the safe keeping of all idiots and lunatics, and of their real and personal estates, so that they and their families may be properly maintained. [They are] also empowered to dispose of and regulate their property under certain restrictions, and should the lunatic recover, his property is to be restored, but should the idiot or lunatic die, it goes to his heirs or next of kin.§

Two or more justices are also allowed to cause to be apprehended and kept safely in custody any persons who, by lunacy or otherwise, are furiously mad, or are so far disordered in their senses that they may be dangerous to be permitted to

* Blackstone, vol. iv. p. 24.

† Code Pénal, art. 64.

‡ Causes Célèbres par Mejan, vol. vi. p. 310.

§ Revised Laws, vol. i. p. 147; Revised Statutes, vol. ii. p. 52.

go abroad. This provision does not, however, restrain or abridge the powers of the chancellor, or prevent any friend or relative of the lunatics from taking them under their own care and protection.*

The mode pursued of proving a person a lunatic or idiot is to make an application to the [judges,] who appoint commissioners to inquire into the fact, and they summon a jury to try it, and by their verdict [the judge] is guided. He may, however, and has directed an issue to try the allegation of lunacy in the circuit court.†

On the petition of a lunatic to supersede the commission, it may either be referred to a master, to take proof thereon, and examine the lunatic, and to report the proofs and his opinion—or the lunatic is directed to attend in court, to be examined by the chancellor.‡

As to criminal cases, the broad principle of want of responsibility is laid down. “No act done by a person in a state of insanity can be punished as an offence, and no insane person

* Revised Laws, vol. i. p. 116; Revised Statutes, vol. i. p. 635.

† In the matter of Wendell, a lunatic. (Johnson's Chancery Reports, vol. i. p. 600.)

‡ In the matter of Hanks, a lunatic. (Johnson's Chancery Reports, vol. iii. p. 567.)

A case further illustrative of this, occurred in 1836 before the supreme court of Massachusetts, which has the powers of chancery.

Andrew C. Davidson, confined in the State Lunatic Asylum, was, at his own request, brought up on a writ of *habeas corpus*, and the superintendent summoned to show cause of detention.

Mr. Davidson was a well educated man, aged forty-five, and had been esteemed amiable and intelligent, but became embarrassed in his circumstances, and finally intemperate. His insanity consisted in *false hearing*. He supposed that his tenant used insulting language, and this delusion extended to his family. He became very passionate, and particularly to those who denied that they heard the noises of which he complained.

He was sent to the hospital in 1834; was discharged; appeared well, but the illusion returned, and he was again confined. He now persists in believing that these sounds are transmitted through a great extent of space, and deems his own organs more perfect in hearing them. On all other subjects he is rational and intelligent. No one would suspect his insanity when with strangers. The court remanded him, not deeming it safe that he be at large, especially with reference to those by whom he supposes himself injured and insulted. (Boston Med. and Surg. Journ., vol. xiv. p. 352.)

can be tried, sentenced to any punishment, or punished for any crime or offence which he commits in that State.”* Some special provisions have also been recently enacted. If any convict, after he is sentenced to the punishment of death, shall become insane, the sheriff, with the concurrence of the circuit judge, shall summon a jury of twelve electors, to inquire into the same; and he must give notice of this inquisition to the district attorney, who can subpoena witnesses. If found insane, the sheriff shall transmit the inquisition to the governor, who can order the execution, in case the convict recovers.†

If a convict in a county prison becomes insane, he is to be transferred to the superintendents of the poor, and if one in a State prison, he may be removed to the New York Lunatic Asylum, at the expense of the State.‡

In other States, where no separate equity jurisdiction exists, the examination and guardianship of these individuals is usually confided to high judicial tribunals, or to officers specially appointed for that purpose.

The common law of England is, however, generally the guide by which civil and criminal cases are decided in this country. It is the basis on which our statute laws are founded, and it is hence important that its peculiarities be distinctly understood.

The most striking are the distinctions that are made between civil and criminal cases. The reader has doubtless already observed that, in the latter, the testimony of others is sufficient to establish the insanity of the prisoner. But under a writ *de lunatico inquirendo*, as happens in civil cases, the supposed insane is usually brought before the commission and jury, to be examined by them, and to satisfy them as to his or her state.

In the instance of Lady Kirkwall, for example, of undoubted insanity, but whose case was one of property, the commission spent eight entire days in this inquiry.§ How different the proceeding is, when the individual is accused of crime, need not be mentioned.

* Revised Statutes, vol. ii. p. 697.

† Ibid., p. 658.

‡ Ibid., pp. 756, 771.

§ London Med. Gazette, vol. xvii. p. 816.

There is a still more striking distinction. If a lunatic be *perfectly recovered*, and not otherwise, his property is to be restored to him.* But in criminal cases, if he exhibits a *lucid interval* of understanding, he may be punished for acts committed during its presence, in the same manner as a sane person is punished. It will hence be proper to offer a few remarks on what is understood by a lucid interval.

The term itself is, with great appearance of probability, supposed by Dr. Haslam to be connected with, and originate from, the ancient theory on the subject of *lunacy*. The patient became insane, as was supposed, at particular changes of the moon; and the inference was natural that, in the intervening spaces of time, he would be rational.† This, however, is an opinion long since abandoned. Observers have repeatedly noticed that the access of the paroxysms has no connection with the phenomenon in question; and our author expressly states that he kept an exact register for more than two years, but without finding in any instance that the aberrations of the human intellect correspond with, or were influenced by, the vicissitudes of the moon. Esquirol observes that in respect to lunar influence, he cannot confirm the long prevalent opinion. The insane, he adds, are certainly more agitated about the full moon, but so they are about daybreak every morning. Hence he conceives the *light* to be the cause of the increased excitement at both these periods. Light, he asserts, frightens some lunatics, pleases others, but agitates all.‡

If, then, the theory on which the term is founded, and the practical deduction from it, are both incorrect, what are we to understand by the term itself at the present day, in legal proceedings? I answer this by some quotations from the writings of distinguished advocates and enlightened physicians.

* In *ex parte* Atkinson, in the matter of Parkinson, the jury, under a commission of lunacy against Parkinson, returned "that the said T. Parkinson, at the time of taking this inquisition, is a lunatic, enjoying lucid intervals, and during such lucid intervals he is competent to the government of himself and the administration of his own affairs." The lord chancellor (Eldon) refused on this to grant a committee, and issued a new commission. (Jacob's Chancery Reports, vol. i. p. 333.)

† Haslam on Madness, p. 214.

‡ Medico-Chirurgical Review, vol. i. p. 251.

Daguesseau, one of the greatest names in French jurisprudence, thus defines it: "It must not be a superficial tranquillity, a shadow of repose; but, on the contrary, a profound tranquillity, a real repose; it must be, not a mere ray of reason, which only makes its absence more apparent when it is gone; not a flash of lightning, which pierces through the darkness only to render it more gloomy and dismal; not a glimmering which unites the night to the day; but a perfect light, a lively and continued lustre, a full and entire day, interposed between the two separate nights of the fury which precedes and follows it: and, to use another image, it is not a deceitful and faithless stillness which follows or forebodes a storm, but a sure and steadfast tranquillity for a time, a real calm, a perfect serenity; in fine, without looking for so many metaphors to represent our idea, it must be not a mere diminution, a remission of the complaint, but a kind of temporary cure, an intermission so clearly marked as in every respect to resemble the restoration of health. So much for its *nature*.

"And as it is impossible to judge in a moment of the quality of an interval, it is requisite that there should be a sufficient length of time for giving a perfect assurance of the temporary re-establishment of reason, which it is not possible to define in general, and which depends upon the different kinds of fury; but it is certain there must be a time, and a considerable time. So much for its *duration*."*

* Highmore on the Law of Idiocy and Lunacy, p. 6. In further noticing this subject, he remarks that "much of the difficulty of discriminating arises from confounding a *sensible action* with a *lucid interval*. An action may be sensible in appearance, without the author of it being sensible in fact; but an interval cannot be perfect, unless you can conclude from it that the person in whom it appears is in a state of sanity. The action is only a rapid and momentary effect; the interval continues and supports itself: the action only marks a single fact; the interval is a state composed of a succession of actions." And again: "If it was true that a proof of some sensible action was sufficient to induce a presumption of lucid intervals, it must be concluded that those who allege insanity could never gain their cause, and that those who maintain the contrary could never lose it; for a cause must be very badly off, in which they could not get some witnesses to speak of sensible actions. A reasonable action is an act; an interval is a state; the act of reason may subsist with the habit of madness; and if it were not so, a state of folly could never be proved." (Pothier's Treatise on the Law of Obligations, vol. ii., Appendix 19, p. 670; London, 1806.)

"To determine the existence of a lucid interval in insanity," says Percival, "the testimony of a physician is sometimes required in courts of law. The complete remission of madness is only to be decided by reiterated and attentive observation. Every action, and even gesture of the patient, should be sedulously watched; and he should be drawn into conversation at different times, that may insensibly lead him to develop the false impressions under which he labors. He should also be employed occasionally in business or offices connected with or likely to renew his wrong associations. If these trials produce no recurrence of insanity, he may, with full assurance, be regarded as legally *compos mentis* during such period, even though he should relapse a short time afterwards into his former malady."*

"I should define," says Haslam, "*a lucid interval* to be a complete recovery of the patient's intellects, ascertained by repeated examinations of his conversation, and by constant observation of his conduct, for a time sufficient to enable the superintendent to form a correct judgment. If the person who is to examine the state of the patient's mind be unacquainted with his peculiar opinions, he may be easily deceived; because, wanting this information, he will have no clue to direct his inquiries, and madmen do not always nor immediately intrude their incoherent notions. They have sometimes such a high degree of control over their minds, that when they have any particular purpose to carry, they will affect to renounce those opinions which shall have been judged inconsistent; and it is well known that they have often dissembled their resentment, until a favorable opportunity has occurred of gratifying their revenge."†

* Percival's Medical Ethics, p. 214.

† Haslam on Madness, pp. 46 and 52. Dr. Burrows, however, remarks on such an opinion as follows: "Some contend that there is no such thing in insanity as a lucid interval; that is, a person must be sane or insane. This is the *reductio ad absurdum*; for who, accustomed to insane people, will deny that intervals of sanity do occur, and that, during such period, a person is in full possession of his faculties? This interval may be of so short a duration as a few hours, or a day, or more; and yet, as the paroxysm uniformly returns, it is obviously the continuation of the same morbid action. Do we

Lord Thurlow has also, with great clearness, stated *what should be the state present to constitute an actual lucid interval*. "By a perfect interval," says he, "I do not mean a cooler moment, an abatement of pain or violence, or of a higher state of torture—a mind relieved from excessive pressure; but an interval in which the mind, having thrown off the disease, has recovered its general habit."

"The burden of proof," he adds, "attaches on the party alleging such lucid intervals, who must show sanity and competence at the period when the act was done, and to which the lucid interval refers, and it is certainly of equal importance that the evidence in support of the allegation of a lucid interval, after derangement at any period has been established, should be as strong and demonstrative of such fact as where

not admit that fevers have perfect intermissions? But do we pronounce the patient, therefore, freed from his insanity? Thomas Willis describes a lucid interval as a perfect return of a sound mind during the intermission, or so long as the mania ceases; and this, in my opinion, is an accurate definition." (Burrows' Commentaries on Insanity, p. 280.)

In conformity to the above, are the observations of Dr. Ray. The lucid intervals in insanity, he observes, are with great justice resembled to the intermissions in intermittent fever, or the periods between the attacks of epileptic fits. The patient still labors under the disease, although the leading symptom is for the time absent. He therefore condemns the too broad assertion of Dr. Haslam. During these periods of apparent reason, there is a weakness of mind remaining, or what Dr. Combe styles an irritability of the brain. As to the commission of crime during the *lucid interval*, Dr. Ray remarks that crimes are generally the result of momentary excitement, produced by sudden provocations. These provocations put an end to the temporary cure, by immediately reproducing that pathological condition of the brain called irritation; and this irritation is the essential cause of mental derangement, which absolves from all the legal consequences of crime. The conclusion from this is, that *we ought never, perhaps, to convict for a crime committed during the lucid interval*. The difference between a person in the lucid interval and one who has never been insane is, that while in the latter the passions are excited to the highest degree of which they are capable in a state of health, though still more or less under his control, they produce in the former a pathological change, which deprives him of everything like moral liberty. (Ray's Med. Jurisp. of Insanity, chap. xiv.; American Jurist, vol. xviii. p. 390.)

Orfila says (Leçons, 3d edit., vol. i. 481) that in maniacs alone are there intervals of reason, and these are frequently very regular, daily, weekly, or monthly. Monomania has them not. The patient is cured when the influence of the ruling idea is overcome.

the object of the proof is to establish derangement. The evidence in such a case, applying to stated intervals, ought to go to the state and habit of the person, and not to the accidental interview of any individual, or to the degree of self-possession in any particular act.”*

* Brown's Chancery Cases, vol. iii. pp. 443, 444. The Attorney-General v. Parnter. Lord Eldon has, however, intimated his disagreement from Lord Thurlow's proposition. (*Ex parte* Holyland, Vesey's Reports, vol. xi. p. 10.) In a late (July 20, 1822) trial in chancery, he has still more openly avowed his opposition to it. The following are stated to have been his words: “With regard to what might be a lucid interval, it was a point of some difficulty. He could never go the length of Lord Thurlow, in the case of Barker. (This is the case quoted above, Attorney-General v. Parnter.) The noble lord was of opinion that, if the existence of insanity was once established, the evidence of a lucid interval ought to be as clear as the evidence in support of the lunacy. He remembered putting the matter thus to Lord Thurlow: ‘I have seen you exercising the duties of lord chancellor with ample sufficiency of mind and understanding, and with the greatest ability. Now if Providence should afflict you with a fever, which should have the effect of taking away that sanity of mind for a considerable time, (for it does not signify whether it is the disease insanity, or a fever that makes you insane,) would any one say that it required such very strong evidence to show that your mind was restored to the power of performing such an act as making a will—an act, to the performance of which a person of ordinary intelligence is competent?’ His lordship observed, upon the case of Mr. Cogland: He was a person who lived in Prince's Street, Oxford Road; and a fire happening in his house, he was taken out of a two-pair of stairs window. It had such an effect upon him, that he became insane. He afterwards made his will in a house kept by a person who had the care of lunatics. His will was precisely according to what he had previously told Mr. Winter, the bank solicitor, he had intended to make. He had stated to him what provisions he had made, and what he intended to make, and his will was in conformity with what he had so stated of his ideas of justice. The will was contested, on the ground that it was not made during a lucid interval; but the delegates were of opinion that, as it was a will effecting the very purposes he had before expressed, it was a good will. For these reasons, he could not agree in the doctrine of Lord Thurlow.”

In the matter of Parkinson, a lunatic. (Albion newspaper of the 7th of September, 1822, extracted from an English paper.) In the course of the pleadings, it was mentioned that Dr. Powell, an eminent physician in London, and for many years secretary to the commissioners for licensing mad-houses, held *there was no such thing as a lucid interval*, (in the ordinary acceptation of the term, I presume.) Dr. Powell probably holds the same opinion that Dr. Haslam does.

“Hoffbaur, after stating that during a lucid interval a lunatic ought to be held responsible for his actions, and to be esteemed able to make legal

On the other hand, somewhat differing from the above opinions, Sir John Nicholl, in a late decision, observes: "Nor am I able exactly to understand what is meant by a 'lucid interval,' if it does not take place when no symptom of delusion can be called forth at the time. How, but by the manifestation of the delusion, is the insanity proved to exist at any one time? The disorder may not be permanently and altogether eradicated—it may only intermit—it may be liable to return, but if the mind is apparently rational upon all subjects, and no symptoms of delusion can be called forth on any subject, the disorder is for that time absent, there is then an interval, if there be any such as a lucid interval. It may often be difficult to prove a lucid interval, because it is difficult to ascertain the total absence of delusion."*

Such, then, is the construction attached to the term *lucid interval* in civil cases, but its signification is narrowed down in criminal ones. Lord Hale, with reference to these, makes a distinction between total and partial insanity: by the first, he understands a perfect form of the disease; and by the last, the presence of so much reason and understanding as will make the individual accountable for his actions. It is allowed by all commentators "that the line which divides them is invisible, and cannot be defined; yet one or other of these states must be collected from the circumstances of each particular case, duly to be weighed by the judge and jury."†

contracts, observes 'that we must not act too strictly upon this opinion, although it is *generally* correct; for, however a lunatic may be in possession of his mental powers, there may be still an inaccurate conception of his present state remaining, at least in connection with former events.'

"In the present complicated state of society, when the slightest error may endanger the happiness and welfare of a whole family, it is highly important to keep the above remark in remembrance. An individual may greatly have recovered, and yet not so far as to be safely trusted with the management of his own affairs. Upon the whole, therefore, Lord Thurlow's opinion is safer and more consonant with our present knowledge of the phenomena of insanity, than Lord Eldon's. The editor refers the reader to the work lately published by Dr. Burrows, for some useful observations upon the criterion of recovery from insanity." (DARWALL.)

* 3 Haggard's Reports, p. 575. Wheeler and Batsford v Alderson.

† Collinson on Lunacy, vol. i. p. 475.

Sir John Nicholl, in the case of *Dew v. Clark*, which I shall hereafter notice, takes the following distinction between the responsibility of lunatics in civil and criminal cases: "The true criterion in these cases is, where there is delusion of mind, there is insanity; that is, when persons believe things to exist which exist only, or at least in that degree exist only, in their own imagination, and of the non-existence of which neither argument or proof can convince them, they are of unsound mind, or, as one of the counsel has accurately expressed it, 'it is only the belief of facts, which no rational person would have believed, that is insane delusion.' This delusion may sometimes exist in one or two particular subjects, though generally there are other concomitant circumstances, such as eccentricity, irritability, violence, suspicion, exaggeration, inconsistency, and other marks and symptoms which may tend to confirm the existence of delusion, and to establish its insane character. The law then does recognize partial insanity in the sense already stated, and in civil cases, this partial insanity, if existing at the time the act is done—if there be no clear lucid interval—invalidates the act, though not directly connected with the act itself; but in criminal cases, it does not excuse from responsibility, unless the insanity is proved to be the very cause of the act."

These are the principles by which the criminal jurisprudence of England and this country is guided in cases of insanity. The question to be considered in each case, as will be seen by the above quotations, is, whether the criminal is capable of distinguishing between *right and wrong*. Is not this the same as inquiring whether he is a moral agent? And how are we to infer this, and who are to be the judges of this capacity or incapacity? I apprehend it must be the jury, and I recommend, in accordance with the advice of Professor Amos, that the medical witness should decline answering this question, and confine himself to an opinion as to the presence or absence of insanity at the commission of the act. Let the rest be a matter of inference, deduced from the nature of the case.*

* London Medical Gazette, vol. viii. p. 421. Haslam relates some cases of insanity in which acts of violence or suicide had been attempted, and

There are some English trials, in addition to those already quoted, which will illustrate the practical operation of the English law. One was that of Earl Ferrers, who was tried before the House of Lords, in 1760, for the murder of Mr. Johnson, his steward. It was proved that his lordship was occasionally insane, and incapable, from his insanity, of knowing what he did, and of judging the consequences of his

the patients, after their recovery, stated that they had not the slightest remembrance of these acts. Certainly such could not judge of what was right or wrong.

The observations of Dr. Mittermaier, a German jurist, are of considerable interest on this point. I derive them from an analysis of his work on the *Influence of Insanity on Criminal Responsibility*, (in the *American Jurist*, vol. xxii. p. 311,) by Dr. Ray.

Two conditions are, according to Dr. M., required to constitute that freedom of the will which is essential to responsibility, viz., a knowledge of good and evil, and the faculty of choosing between them. This knowledge of good and evil requires, first, that knowledge of one's self by which he recognizes his personal identity and refers his acts to himself; second, a knowledge of the act itself, i.e. of its nature and consequences; third, a knowledge of the relations of the act of both in regard to men and measures; fourth, a knowledge that the act in question is prohibited either by the moral or the statute law. He rebukes the English jurists for their rigid adherence to the antiquated doctrine, that whoever can distinguish good from evil enjoys freedom of will, and retains the faculty, if he pleases to use it, of conforming his actions to the requirements of law. "The true principle," he observes, "is to look at the personal character of the individual where responsibility is in question, to the grade of his mental powers, to the notions by which he is governed, to his views of things, and finally to the course of his whole life, and the nature of the act with which he is charged. A person who commits a criminal act may be perfectly well acquainted with the laws and their prohibitions, and yet labor under alienation of mind. He may know that homicide is punished with death, and yet have no freedom of will."

In the same spirit are the following remarks: "It appears to us that the true test for irresponsibility should be, not whether the individual knew that what he was doing was criminal, but whether he had sufficient power of control to govern his actions. It might fairly be asked, how is such a test to be applied, so as to insure protection to society and prevent injustice to those laboring under mental disease? We can only reply, that we must judge from circumstances, a practice now daily followed in the determination of the shades of guilt, by which murder passes into manslaughter. The sole difference between these two crimes rests, in a large number of instances, upon the power of self-control in the accused party." (*British and Foreign Med. Review*, vol. x. p. 140.)

actions. He had harbored enmity against Johnson for some time, but dissembled it so that it was not suspected, or at least was supposed to have been forgotten. Johnson waited upon him by appointment, and when alone in the room with the earl, the latter, with great deliberation, told him his time was come; and taking a pistol, inflicted a mortal wound. A unanimous verdict of guilty was found, and the earl was executed.*

Edward Arnold was indicted for maliciously shooting at Lord Onslow. He had for years harbored an idea that Lord Onslow was an enemy to him, and in consequence had formed a regular, steady design to murder him, and had prepared the means for carrying this into effect. And yet there was no doubt that, to a certain extent, he was deranged. He also was found guilty; but at Lord Onslow's request, he was reprieved and confined in prison until his death.†

Again, in *Rex v. Oxford*, who was tried at the Bury assizes, (1831,) before Lord Chief Baron Lyndhurst, for murder, by shooting with a gun, the defence was insanity. It appeared

* Hargrave's *State Trials*, vol. x. p. 478. Lord Campbell, *Lives of the Lord Chancellors*, vol. v. p. 195, makes the following remarks on this case: "Were such a case now to come before a jury, there would probably be an acquittal, on the ground of *insanity*; although the noble culprit was actuated by deep malice toward the deceased, although he had contrived the opportunity of satiating his vengeance with much premeditation and art, and although the steps which he afterwards took showed that he was fully sensible of the magnitude and the consequences of his crime."

Charles Yorke was solicitor-general at this time, and along with Pratt, attorney-general, (afterwards Lord Camden,) was the public prosecutor. Lord Campbell says, vol. v. p. 398: "The solicitor-general's reply on this occasion was one of the finest forensic displays in our language, containing, along with touching eloquence, fine philosophical reasoning on mental diseases and moral responsibility. 'In some sense,' said he, 'every violation of duty proceeds from insanity. All cruelty, all brutality, all revenge, all injustice, is insanity. There were philosophers in ancient times, who held this opinion as a strict maxim of their sect; and, my lords, the opinion is right in philosophy, but dangerous in judicature. It may have a useful and a noble influence to regulate the conduct of men to control their impotent passions, to teach them that virtue is the perfection of reason, as reason itself is the perfection of human nature, but not to extenuate crimes, nor to excuse those punishments which the law adjudges to be their due.'"

† Collinson on Lunacy, vol. i. p. 476.

that the prisoner labored under a notion that the inhabitants of his town, and particularly the deceased, were continually issuing warrants against him, to deprive him of his liberty and life; that he would frequently, under the same notion, abuse people in the street, and with whom he never had any dealings or acquaintance of any kind. In his waistcoat pocket a paper was found, headed "List of Hadleigh Conspirators against my Life;" and among these were the names of the deceased and his family. Several medical witnesses deposed to their belief that, from the evidence they had heard, the prisoner labored under that species of insanity which is called *monomania*, and that he committed the act while under the influence of that disorder, and might not be aware that, in firing the gun, his act involved the crime of murder.

Lord Lyndhurst told the jury that they must be satisfied, before they could acquit the prisoner on the ground of insanity, that he did not know, when he committed the act, what the effect of it, if fatal, would be, with reference to the crime of murder. The question was, did he know that he was committing an offence against the laws of God and nature? His lordship referred to the doctrine laid down in Bellingham's case by Sir James Mansfield, and expressed his complete accordance in the observation of that learned judge. The jury acquitted the prisoner on the ground of insanity.*

Lord Erskine, in his famous speech on the trial of Hadfield, proposed the following distinction: To absolve from criminal responsibility there must first be *delusion*; and secondly, the *delusion* and the act must be connected. Valuable as is this suggestion, yet it must be understood that there are cases in which no connection of this description can be shown, and indeed, from the nature of the disease, it is often impracticable to prove it. We may be satisfied as to the insanity, (partial or total,) and yet not be able to trace its union with the act that constitutes the subject of investigation. The difficulty is increased when we take into account the form of insanity which most commonly leads to the perpetration of acts of homicide. It is that of melancholy, where the mind broods often in silence

* Carrington and Payne's Reports, vol. v. p. 168.

over a single idea, and that idea may be his own destruction, or the destruction of others. Its similitude to the effects of passion, and indeed of deliberate crime, is often so near, that we can hardly appreciate the difference. "Of methodical madness, of systematic perversion of intellect," says Haslam, "the multitude can form no adequate conception, and cannot be persuaded that insanity exists without turbulent expression, extravagant gesture, or fantastic decoration."

What can be more alike than the anger of the sane and the insane? What a similitude between the maniac and the habitually passionate, between the melancholic and him who habitually broods over his malignant and revengeful conceptions! * In fine, if madness were not stamped on its front, would not the following be ranked among the foulest and most deliberate murders? It is taken from the mouth of the maniac himself, as stated to Dr. Haslam: "The man whom I stabbed richly deserved it. He behaved to me with great violence and cruelty; he degraded my nature as a human being; he tied me down, handcuffed me, and confined my hands much higher than my head with a leathern thong; he stretched me on a bed of torture. After some days he released me. I gave him warning, for I told his wife I would have justice of him. On her communicating this to him, he came to me in a furious passion, threw me down, dragged me through the court-yard, thumped me on my breast, and confined me in a dark and damp cell. Not liking this situation, I was induced to play the hypocrite. I pretended extreme sorrow for having threatened him, and by an affectation of repentance, prevailed on him to release me. For several days I paid him great attention, and lent him every assistance. He seemed much pleased with the flattery, and became very friendly in his behavior

* In speaking of Carlos, son of Philip of Spain, Sir James Mackintosh remarks: "The clouds which always darkened his feeble reason might sometimes quench it. The subtle and shifting transformations of wild passion into maniacal disease, the return of the maniac to the scarcely more healthy state of stupid anger, and the character to be given to acts done by him when near the varying frontier which separates lunacy from malignity, are matters which have defied all the experience and sagacity of the world." (*History of England*, vol. iii. p. 36.)

toward me. Going one day into the kitchen, where his wife was busied, I saw a knife; (this was too great a temptation to be resisted;) I concealed it, and carried it about me. For some time afterwards the same friendly intercourse was maintained between us, but as he was one day unlocking his garden-door, I seized the opportunity, and plunged the knife up to the hilt in his back."*

It is from long-continued and anxious reflection on the difficulties which thus present themselves to the consideration of the medical witness, that I am led to withdraw much of the objection that I have felt and expressed against the *dictum* of the English law on this subject. There must be some rule to guard the sacred interests of society; something to repress and keep in check that tendency to "shed the blood of his fellow," which unfortunately is too common; and, at the same time, humanity forbids that the horrid spectacle should be permitted of taking away the life of the insane by judicial process. Let the question put by Lord Lyndhurst be presented to every jury: *Did the prisoner know that in doing the act he offended against the laws of God and man?* Let the following remarks of the Scotch law commentators on this subject be kept in mind, and with the acknowledged mildness of our laws, and the unwillingness to convict capitally, I feel a strong conviction that no practical injustice will be done. But to aid in effecting all this, it is very necessary that the medical witness should have every facility allowed him for studying the nature of the case, and that its history should be well ascertained. Need I add that juries should be carefully instructed as to this particular form of insanity?

"Whether it should be added to the description," says Baron Hume, "that he must have lost all knowledge of good and evil, right and wrong, this is a more delicate question, and fit perhaps to be resolved differently, according to the sense in which it is understood. If it be put in this sense, in a case, for instance, of murder: Did the panel (prisoner) know that murder was a crime? Would he have answered on the question that it was wrong to kill a neighbor? This is hardly to be

* Haslam on Madness, p. 169.

reputed a just criterion of such a state of soundness as ought to make a man accountable in law for his actions. Because it may happen, a person to answer in this way, who yet is so absolutely mad as to have lost all true observation of facts, all understanding of the good or evil intentions of those who are about him, or even the knowledge of their persons. But if the question be put in this other and more special sense, as relative to the very act done by the panel, and the particular situation in which he conceived himself at that time to stand, did he, at the moment of doing that thing, understand the evil of it? Was he impressed with the consciousness of guilt and fear of punishment? It is then a pertinent and material question, but which cannot to any substantial purpose be answered, without taking into consideration the whole circumstances of the situation. Every judgment in the matter of right and wrong supposes a case or state of facts to which it applies, and though the panel have that vestige of reason which may enable him to answer in the general that murder is a crime, yet if he cannot distinguish his friend from his enemy, but conceive everything about him to be the reverse of what it really is, and mistake the illusions of his fancy for realities, with respect to his own condition and that of others, '*absurda et tristia sibi dicens atque fingens*,' these remains of intellect are thus of no use to him toward the government of his actions, nor in any way enable him to form a judgment upon any particular situation or conjuncture, of what is right or wrong with regard to it. Proceeding, as it does, on a false case or conjuration of his own fancy, his judgment of right and wrong, as to any responsibility that should attend it, is truly the same as none at all. It is, therefore, only in this complex and appropriated sense, as relative to the thing done and the situation of the panel's feelings and consciousness on that occasion, that this inquiry concerning his intelligence of moral good and evil is material, and not in any other or larger sense."*

Alison observes: "Few men are mad about others or things in general; many about themselves. Although, therefore, the panel understands perfectly the distinction of right and wrong,

* Hume's Commentaries, vol. i. pp. 24, 25.

yet if he labors, as is generally the case, under an illusion and deception as to his own particular case, and is thereby disabled from applying it correctly to his own conduct, he is in that state of mental alienation which renders him not criminally answerable for his actions.”*

In this fluctuation of legal opinion (if I may so style it) and certainly of practice, occurred the death of Mr. Drummond, in London, by a pistol shot inflicted by Daniel McNaughton, on the 20th January, 1843. The crime was readily proved, but it was shown on the trial that the prisoner had labored for some time under manifest symptoms of insanity. He was now declared to be insane by the testimony of nine medical witnesses. The chief justice (Tindal) stopped the case, declined to hear the summing up of the prosecuting counsel, and directed the jury to bring in a verdict of not guilty on the plea of insanity.

The acquittal of McNaughton caused a vast amount of popular clamor. It was denounced by the press. Mr. Warren, in Blackwood's Magazine, says of it: “The acquittal of this cold-blooded murderer horrified and disgusted the public.”

“It created,” says Mr. Townsend, “a deep feeling in the public mind, that there was some *unaccountable defect* in the criminal law.” It was alluded to in both Houses of Parliament. Yet time has shown that this acquittal was right, for we have the testimony of Mr. Wood, medical officer of Bethlem Hospital, that “McNaughton is now (1852) unquestionably insane.”

In the Commons, an Irish baronet moved to bring in a bill *to abolish the plea of insanity in cases of murder*, unless it could be proved that the accused was publicly known as a maniac. To the credit of the good sense of the house, the motion found no seconder. In the Lords, the matter was discussed on the same evening by Lords Lyndhurst, Brougham, Cottenham, Campbell, and Denman, and the judges were called on to declare the true state of the law on this subject.

* Alison's Principles of the Criminal Law of Scotland, p. 645.

Five questions, carefully framed for this purpose, were submitted to them.

The answers were read in the name of all the judges, excepting one, (Mr. Justice Maule,) by Lord Chief Justice Tindal, on the 19th June, 1843.

Question 1. What is the law respecting alleged crimes committed by persons afflicted with insane delusion, in respect of one or more particular subjects or persons: as, for instance, where at the time of the commission of the alleged crime the accused knew he was acting contrary to law, but did the act complained of with the view, under the influence of some insane delusion, of redressing or avenging some supposed grievance or injury, or of producing some supposed public benefit?

Answer. Assuming that your lordships' inquiries are confined to those persons who labor under such partial delusion only, and are not in other respects insane, we are of opinion that, notwithstanding the party did the act complained of with a view, under the influence of insane delusion, of redressing or revenging some supposed grievance or injury, or of producing some public benefit, he is nevertheless punishable according to the nature of the crime committed, if he knew at the time of committing such crime that he was acting contrary to law, by which expression we understand your lordships to mean the law of the land.

Questions 2 and 3 had reference to the particular terms in which the question, as to the prisoner's state of mind at the time when the act was committed, should be left to the jury, when insanity was set up as a defence.

The answer was, in substance, that the jury ought, in all cases, to be told that every man is presumed to be sane until the contrary be proved to their satisfaction. It must be clearly proved that the party accused did not know he was doing what was wrong, and the usual course has been to leave to the jury the question whether the party had a sufficient degree of reason to know that he was doing an act that was wrong.

Question 4. If a person, under an insane delusion as to ex-

isting facts, commits an offence in consequence thereof, is he thereby excused?

A. If the delusion were only partial, the party accused was equally liable with a person of sane mind. If the accused killed another in self-defence, he would be entitled to an acquittal; but if the crime were committed for any supposed injury as to his character and fortune, he would then be liable to punishment.

Question 5. Can a medical man, conversant with the disease of insanity, who never saw the prisoner previously to the trial, but who was present during the whole trial and examination of all the witnesses, be asked his opinion as to the state of the prisoner's mind at the time of the commission of the alleged crime, or his opinion whether the prisoner was conscious, at the time of doing the act, that he was acting contrary to law? or, whether he was laboring under any, and what delusion, at the time?

A. The question could not be put in the precise form stated above, for by doing so, it would be assumed that the facts had been proved. When the facts were proved and admitted, then the question, as one of science, would be generally put to a witness under the circumstances stated in the interrogatory.

Mr. Justice Maule agreed with the judges in respect to the answers returned to all the questions excepting the last; from this he entirely dissented, deeming that the question might be put.*

* British and Foreign Medical Review, vol. xvi. p. 273. The opinions of the judges are reported in full in Clark and Furnelly's House of Lords Reports, vol. x. p. 200. The trial of McNaughton, (also published separately,) is given in Townsend's Modern State Trials, vol. i. p. 314.

The legal reader will readily perceive the difference between the English and Scotch opinions on this subject. Sir James Mansfield held that Belingham was accountable, because *he knew murder was a crime, and could distinguish right from wrong*. "On this case," says Mr. Alison, "it may be observed, that unquestionably the mere fancying a series of injuries to have been received, will not serve as an excuse for murder, for this plain reason, that supposing it true that such injuries had been received, they would have furnished no excuse for the shedding of blood; but, on the other hand, such an illusion as deprives the panel of the sense that *what he did was wrong*,

In the discussions, both previous and subsequent to the publication of the above opinions, the principal objection is made to retaining the doctrine of ability of judging between right and wrong.

The argument urged, as far as I understand it, is briefly this: If insanity is proved to have existed, its presence should absolve from responsibility. The disease is so intricate in its nature, its symptoms are so liable to be mistaken, that the hazard is too great to punish an individual in whom we have once recognized its existence, merely because he seemed at the time to be rational. The act itself is a manifestation of insanity. Why then introduce the doctrine of his ability of judging between right and wrong, which, it must be conceded, can only be inferred from conversation and conduct? Such, I believe, is the general train of reasoning adopted. But it will be more satisfactory to quote the exact words of one of the ablest advocates of this opinion.

“If it be true that there is none of the phenomena of yet imperfectly understood human nature over which hangs a thicker veil to the general eye than the phenomena of mental aberration, what are we to think of making distinctions, as if all were clear, between *partial* and total insanity, and drawing the line of responsibility with perfect confidence? We humbly but earnestly suggest that instead of deciding for responsibility in partial insanity, it is both more just and more merciful to doubt as to that essential, when DISEASE OF MIND, TO A PALPABLE AND CONSIDERABLE AMOUNT, IS PROVED. It is more just and more merciful, in such a case, to take care of

amounts to legal insanity, although he was perfectly aware that murder in general was a crime, and therefore the law appears to have been more correctly laid down in the case of Hadfield, than in this instance.” (Edinburgh Law Journal, vol. i. p. 524.) It is the opinion of many physicians in England, that Bellingham was insane when he murdered Mr. Percival. [This opinion is now, I think, universal.—C. R. G.]

“On that day week,” (referring to the period of the murder,) says Lord Brougham, “Bellingham, having been tried and convicted, was executed, to the eternal disgrace of the court which tried him, and refused an application for delay, grounded on a representation that, were time given, evidence of his insanity could be obtained from Liverpool, where he resided and was known.”

the accused and of society by his confinement, than to run the risk of putting to death an irresponsible agent. Insanity, as far as we have the means of perceiving, is a bodily disease; in other words, its visible and invariable condition is a morbid action of the brain, either structural or functional. A definition of the effect, in feeling and manifestation, of a diseased brain, which shall be sufficiently comprehensive to include all the varieties of insane affection, is scarcely to be looked for; yet definitions are constantly sought after in courts of law, and the whole value of a witness's evidence is often made to turn on its relation to a standard which is in itself the merest assumption. It would be a safer rule for courts of law to direct their attention to the proof generally of diseased manifestations of the intellect and feelings; and when these are undoubted, to presume irresponsibility, because the contrary cannot be made sure of, and the balance of probability is greatly on the side of irresponsibility. If mercy is often extended to youth, to seduction, even to great provocation, how much more ought it to shelter disease of the mind when clearly established! If it be true, and no physician denies it, that to diseases of the inflammatory class it is impossible to prescribe limits, or to predict that new and aggravated symptoms shall not suddenly follow in the course of the diseased action, is it not presuming too much to decide that inflammation of the brain, a usual cause of insanity, has known boundaries, and shall not suddenly extend from partial to produce total insanity? We feel assured that no one conversant with insanity will deny the fact that the insane, however partially, are not safe from sudden paroxysms and aggravations of symptoms."*

* "Observations on the degree of knowledge yet applied to the plea of insanity, in trials for crimes." (Edinburgh Law Journal, vol. i. p. 542.) The paper from which this is a quotation, was written by James Simpson, Esq., of Edinburgh, and is republished in the Appendix to his work on Popular Education.

I add another observation by the same author, but have mislaid the reference: "There is so much evil in the very risk, that man's vengeance should follow God's visitation, that all cases of crime or violence, in which *previous mental disease is unequivocally proved*, should have the whole benefit of

[This test of sanity, the knowing right from wrong, or, as the judges put it, "having a sufficient degree of reason to know that he was doing an act which was wrong;" "acting contrary to the law of the land," has not yet been banished from the law. It was, in the case of Huntington, thus stated by Judge Capron: "If, though somewhat deranged, he is yet able to distinguish right from wrong in the particular case in which crime is imputed to him, and to know that he is doing wrong, he is punishable."

On this legal test of sanity I have elsewhere remarked—1st. As a test of sanity, it is utterly futile. 2d. It has not, with any uniformity, guided the administration of the law, either before it was formally laid down or since; having been disregarded even by some of the judges who laid it down. 3d. When it has guided the administration of the law, the result has been the perpetration on the scaffold of some of the most cruel murders the history of which disgraces the annals of our race.

To establish the first of these propositions, it might be sufficient to appeal to the testimony of those who have had charge of insane asylums, and have practical knowledge of insanity, who all concur in the opinion, that a very large majority of those unmistakably insane do know perfectly well the difference between right and wrong, both abstractly and with respect to the acts they commit.

But we will also give one or two cases which strikingly illustrate this particular point, and go to prove not only a knowledge of the right and wrong of these acts, but a very accurate appreciation of their character and their relations to the law of the land.

CASE I.—A patient in Bethlem Hospital, who was for the most part quiet, orderly, and rational, had an irresistible propensity to tear her bedclothes. She was fully aware that she was doing wrong, was always ashamed of it, and continually begged that I (Mr. Wood) might not be told of

the presumption, that such a case may in a moment run into irresponsible mania, and the unhappy patient judged fit for confinement and not for punishment."

it. When I attempted to reason her out of this mischievous propensity, and asked her why she persisted in it, she would try to avoid the question; but, on being pressed for an answer, could only say, "I should not do it if I were not afflicted."*

Who can doubt, in reading this touching case, that this poor girl gave a true and philosophical account of her condition?

CASE II.—Jonathan Martin, who fired York Minster, knew, when he did it, that the act was contrary to law; indeed, he knew that it was a capital felony, and expected to be hanged for it. He did it, in the language of the judges, "with a view, under the influence of insane delusion, of producing a public benefit." Yet Martin was acquitted as undoubtedly insane.

The following cases are adduced to prove our second proposition, viz., that this test has not, with any uniformity, guided the administration of the law, either before or since it was formally laid down by the twelve judges; having been, in several cases, entirely disregarded by some of the very judges who laid it down.

CASE III.—James Hadfield fired at King George III. in Drury Lane Theatre. He made no attempt to escape, and, when arrested, avowed his crime, saying he knew his life was forfeited—he did the act for that reason. He was tired of life, and his plan was to get rid of it. He did not intend to take the life of the king; he knew that *the attempt* only, would answer his purpose.

Now try this case by the test of knowing right from wrong, whether in its naked deformity, as laid down by Justice Tracy in *R. v. Arnold*, who said, "A man must be totally deprived of his memory and understanding, so that he does not know what he is doing, more than an infant, a brute, or a wild beast;" or as given by Lord Lyndhurst on *R. v. Oxford*, "The jury must be satisfied that he did not know what the effect of the act, if fatal, would be, in reference to the crime

* Wood on the Plea of Insanity, p. 19.

of murder." Did not Hadfield know what he was doing more than a "brute?" Did he not know perfectly, *accurately*, that *the attempt* even, to kill the king, was a capital felony? Yet Hadfield was acquitted as an undoubted lunatic, and remained in Bethlem Hospital for years, unmistakably insane.

CASE IV.—Ross Touchet entered a shooting-gallery, and deliberately shot the proprietor, inflicting a wound of which he died, after lingering for eleven months. After firing the pistol, Touchet said "he did it on purpose, for he wished to be hanged." There was no evidence of intellectual aberration. Could any case present more indisputable proof that the prisoner "knew, at the time of committing such crime, that he was acting contrary to the law of the land?" Yet he was acquitted as insane.

CASE V.—Almira Brexley, aged nineteen, was a nurse in the family of a gentleman in London. She had suffered for some months from amenorrhœa, and been prescribed for by the family physician, for that disease; he had never discovered the slightest sign of intellectual aberration, nor had the idea of her being insane ever been entertained by any one. One Sunday morning she went into the kitchen, and selecting a large knife, *tried* its edge with her finger; and when she was asked by a fellow-servant what she wanted it for, said "to cut Miss Mary's pencil." She was told that a smaller one would answer the purpose better; but said she would take that, as it would answer to cut bread for the children's luncheons. She then went into the nursery, and cut the throat of the baby in his cradle, nearly severing the head from the body, and of course producing instant death. She next rushed into her master's room, where he was entertaining company, and exclaimed, "Oh what will become of me! I have murdered the dear baby! Will you, sir," addressing her employer, "forgive me? Will God forgive me?"

She was tried before Lord Denman, and acquitted on the ground of insanity.

Will any one pretend that this woman did not know that what she had done was wrong, that it required pardon both from God and man?

CASE VI.—William Frost, a tanner, who had borne an excellent character, during a period of despondency killed his four children. He washed the handle of the hammer with which he committed the homicide, and afterwards hid it. Surely he knew perfectly well that he had acted contrary to the law; and had intellect enough to attempt to escape punishment. Indeed the case was, in this view of it, so clear against the prisoner, that the judge (Mr. Justice Williams) formally abandoned the right and wrong test, and charged the jury “that it was not merely for them to consider whether the prisoner knew right from wrong, but whether he was, at the time he committed the offence, deranged.”

Having now shown that this test has not guided the administration of the law, having been disregarded both by Chief Justice Tisdale and Lord Denman—two of the judges who united in the answer to the House of Lords—and formally abandoned by Mr. Justice Williams, we proceed to establish our third proposition, viz.: Where it has guided the administration of the law, the result has been, in some cases, the perpetration on the scaffold of judicial murder. First in order of time, and first in its display of judicial ferocity, we place the case of Bellingham. Aware that we have used harsh language, we beg the reader, before condemning us, to peruse calmly, if he can, what follows.

CASE VII.—On Monday, May 11th, 1811, Mr. Spencer Percival, then prime minister of England, was shot in the lobby of the House of Commons, by a man named Bellingham, who had no personal feeling against that most amiable gentleman, but was incited to this miserable homicide by the insane notion that, in this way, and in this way only, he could bring before the public certain claims which he supposed he had against the government. In reply to the frantic cries of the by-standers, “Where is the rascal that fired?” he calmly said, “I am that unfortunate man.” On his trial, Bellingham’s counsel claimed that he was insane; and, fortified by strong affidavits, besought of the court for only such brief delay as would be necessary to bring from Liverpool and elsewhere abundant evidence, from parties who had known him

from childhood, that Bellingham was and had for a long time been insane. This brief delay was opposed by the then attorney-general, Sir Vicary Gibbs, who insisted that it was clearly a contrivance to delay the administration of justice, to impose upon the court a false belief. Sir James Mansfield* refused to grant the delay asked for. The trial proceeded; the attorney-general, fortified, as he said, by the sages of the law, declared that "a man may be deranged in his mind, not having intellect sufficient to conduct the common affairs of life, yet he is answerable to the law for his criminal acts, if he is capable of distinguishing right from wrong." Bellingham, when called upon to speak for himself, made a long, rambling harangue, setting forth his claims against the government, and the manner in which justice (as he said) had been denied him. In justification of the homicide, he said that the clerk had, in dismissing him, told him that "now he was at full liberty to take such measures as he thought proper for redress." This, Bellingham insisted, was a *carte blanche* from the government, and gave him the clear right to do what he pleased. He repudiated, in express terms, the idea of being insane, and thanked the attorney-general for objecting to that plea. The whole speech is plainly that of a madman, and ought of itself to have convinced the court of Bellingham's insanity. The judge duly confirmed the law as laid down by the attorney-general; Bellingham was found guilty, and hanged. *His crime, commitment, trial, and execution, occupied just one week!* Mr. Percival was, as we have stated, shot on Monday, May 11th, 1811. On Monday, May 18th, the dead body of Bellingham had been given to the surgeons for dissection.

To show the condition of mind of this poor wretch, when about to satisfy the ferocity of the law, take the following statement from Blackwood's Magazine for 1850, p. 564: "A military officer present at the execution of Bellingham, and very near the scaffold, told us that he distinctly recollects B., while standing on the scaffold, elevating one hand, as if to

* In many of the books it is stated that Lord Mansfield presided at this trial. This is obviously a mistake. Lord Mansfield died in 1793, long before the Bellingham trial.

ascertain whether it were raining, and saying to the chaplain, in a calm and natural manner, '*I think we shall have rain to-day.*'" It is worthy of remark, that Lord Brougham, in the debate on the case of McNaughton, while condemning the refusal of delay in Bellingham's case, coolly adds: "No one can doubt that, had the proof been obtained, the result would have been the same." Those who desired to satirize the law could not, I think, do it more effectively, than by adding to this remarkable opinion of the learned lord, the "*certainly not*" of the old comedy.

CASE VIII.—N. Laurence had been arrested for a petty theft, and taken to the police-station, where the inspector, an utter stranger to Laurence, was standing with his back to the prisoner, talking to some friends. Laurence suddenly seized a poker and struck the inspector a violent blow on the head, which speedily proved fatal. The prisoner admitted that he had no motive for the act, and would have struck any one who had been standing there at the time; he said he was glad he had done it, and hoped the inspector would die, as he wished to be hanged.

It appeared on the trial, that there was no possible cause of quarrel between the parties, but that the prisoner seemed to be actuated by some sudden impulse, for which not the slightest reason could be assigned. This man was hanged.

Compare this case with that of Touchet, Case IV.; and can any one doubt that if Touchet was rightly acquitted, Laurence was most wrongfully murdered?

CASE IX.—Thomas Bowler was tried for murder, at the Old Bailey, July 2d, 1812. The killing being admitted, the defence was insanity. It was proved by unimpeached testimony, that the prisoner had, about a year before, an attack of epilepsy of great severity, and had ever since been greatly changed in conduct and conversation. Mr. Washburton, superintendent of a lunatic asylum, swore that he had no doubt of the prisoner's insanity. To place the matter beyond doubt, a commission of lunacy, by which, a short time before, the prisoner was declared insane, was produced. Yet all in vain. The judge charged, as usual, that if the pris-

oner was capable of distinguishing right from wrong, he was responsible to the law. The jury found Bowler guilty, though, the report adds, *with some difficulty!*

I here close my remarks on the third proposition. Can it be doubted that in all its force and in all its apparent harshness the proposition is true, that where this right and wrong test has controlled the administration of the law, the result has been the perpetration upon the scaffold of most cruel murders? Will any one say that the reckless haste that denied to poor Bellingham the few days necessary to establish his defence was aught less than murderous?

Was the partiality that sent Laurence (Case VIII.) to the gallows, while Ross Touchet (Case IV.) was spared, anything but murderous?

Above all, was the hanging of Thomas Bowler, (Case IX.,) after he had been, upon due legal investigation, declared insane, and as insane deprived of the control of his property, aught but murder? To this sad list of legal murders, the jurisprudence of our own country has, since the publication of the last edition of Beck, made a fearful addition. Patrick Maude, the new victim, was born in Ireland, received a rudimentary education, worked in a chemical factory, came to this country, got employment in the chemical works in Newark, New Jersey; married, took to drinking, at times to excess, began to act wildly, took up the notion that there was a conspiracy against him to which his wife was a party, made an attack on her, was arrested, tried, acquitted as insane, and sent to the Insane Asylum at Trenton, whence he soon after escaped, returned to Newark, and deliberately shot his sister, firing two pistols into her breast. He was arrested and brought to trial; during its progress he constantly, and with great vehemence, repudiated his counsel, and all idea of his being insane; raved of "an inquisition held on his death by a Catholic priest and others who were in a conspiracy to destroy him." "The Inquisition was a *Spanish Inquisition*," "contrary to the constitution," and the like. Medical evidence was introduced. Dr. Dougherty "considered his present condition of mind the

same as when he was sent to the asylum." Dr. J. H. Clark, considers Maude insane. Dr. Buttolph, physician to the State Asylum, testified to Maude's extreme violence while at the asylum when "the conspiracy" was mentioned. "Thinks Maude's case a monomania." Proof was given that Maude had illusions; heard the voices of the conspirators in the cell above him; heard them talking and planning, etc. etc. On the legal test of knowing right from wrong, he was found guilty; on the scaffold his monomaniacal ravings continued; and, to crown the whole, on post-mortem examination, thickening and opacity of the arachnoid, subarachnoid effusion, adhesion of that membrane to the dura mater, and a small fibrous tumor attached to the latter membrane were found. To this case I dare to apply the language of an eloquent Englishman: "Never," said Sir Wm. Drummond, "was there a fouler murder against the law than the murder of this woman by the law!"—C. R. G.]

Robert Dean was a young man of weak intellect and strong animal passions. He became warmly attached to a female superior in station to himself, and was rejected. This caused ungovernable feelings of revenge, and he determined on her murder. He had at the same time some religious ideas, and it occurred to him, that by putting this woman to death, he would send an unprepared sinner into eternity. But the impulse to shed blood had taken irresistible possession of him. There was a child of which he was very fond and had often caressed, who he concluded had fewer sins to answer for, and this he determined should be the victim. He murdered it, and then gave himself up to justice. He was tried, condemned, and executed in the County of Surrey, (England,) in 1819. "The act, itself a sufficient proof of insanity, was strengthened by insane notions and actions, and absolute raving even on the scaffold."

Louis Papavoine was born at Mouy, department of the Eure, in 1784. He had a liberal education. In 1804, was received as an extra clerk in the navy department. He rose gradually, through good conduct and attention to business, to

the office of first clerk at the port of Brest. He was unsociable and melancholic, much addicted to solitary walks. He had no confidant, but in ordinary conversation his ideas were correct and sensible. One of his fellow-clerks deposed, that during the last year of his clerkship, Papavoine complained that an individual appeared to pursue him in his sleep, and threatened to kill him, but that when he awoke he saw no one. This condition of mind continued for ten days, after which nothing remarkable was observed.

His father died in 1823, and he determined to continue the business. Difficulties, however, soon occurred. The pecuniary situation of the family became very critical.

Papavoine now seemed to repent having quitted his clerkship, and made some fruitless attempts to recover it. Their failure seemed to aggravate the severity of his temper and the gloominess of his appearance. He one day said to his mother, "Mother, my father is not dead. I have the proof in this paper. They sometimes bury persons who are alive." Alarmed at this, she appears to have avoided taking her meals with him, although she continued residing under the same roof.

At the end of September, 1824, Papavoine complained of illness. A physician found some symptoms of fever, and prescribed an emetic with good success, and further directed exercise, etc. Papavoine visited Beauvais, where he had relatives and some commercial connections. His misanthropy did not, however, desert him there, although his conversation, when he indulged in it, was correct. The only peculiarity noticed was a question to his relative, whether his father and brother were really dead. "I have a paper here," said he, "which contradicts it." He also complained of having a mortal enemy at Mouy.

The day after his arrival, (October 3,) he received an unexpected letter from his mother, stating that the department of war had agreed to a renewal of part of the contracts, for which he appears to have been constantly applying. As some further negotiations were necessary to complete these, he determined to proceed to Paris. He borrowed money to pay his expenses, and took with him the baggage he had

brought from Mouy, writing at the same time to his mother for additional articles. Among his baggage brought from home, and taken by him to Paris, were two *common table knives*.

On the fifth of October, he alighted at a hotel in Paris, visited his mercantile correspondents, and arranged the mode of completing the necessary formalities of his contract. From this day until the tenth, he appears to have kept himself very retired. On that day, after taking a slight repast, he went to the forest of Vincennes.

In this place a female was walking with her two boys, one five, and the other six years of age. A young woman, also walking, noticed the children, and requested permission to caress them. Papavoine at this instant passed by them, took off his hat, bowed, and proceeded on. The young woman also pursued her walk. She was encountered by Papavoine, who addressed her: "Do you know whose children you were caressing?" She replied: "We may caress children, although we do not know whose they are." He abruptly left her, and appears to have gone immediately into an adjacent shop, where he inquired for a case-knife. They refused to sell any, except by the dozen; but on his offering an advance in the price, a single one was sold to him.

He returned to the walks, and with a pale countenance and haggard aspect encountered the mother. "Your walk is soon finished," said he; and bending his body over one of the children, as if to embrace it, plunged his knife into its breast. Alarmed with its shriek, though ignorant of the cause, she struck him with an umbrella which she had in her hand. He did not heed this, but immediately struck the second in an equally fatal manner. Both died almost instantly. Papavoine escaped into the wood; nor was it until some hours had elapsed, that he was arrested by a *gendarme*. He was identified by the mother, and gave up his name.

On his examination, he denied having committed the crime, and persisted in this for upwards of a month; at the end of which period, he declared that he had some important disclosures to make, but could divulge them only to two royal

princesses. His application to see them was refused; and he then declared that he had committed a mistake in murdering these children, having intended to destroy those of the Duke de Berri. (The duke had been assassinated previous to this.)

This audacious statement was considered as an artifice, to persuade the public of his insanity. About this period, also, he became very furious in his prison; got out of his bed at night; searched for a knife, and even attempted to set fire to his bed. His keeper having momentarily left a door open to admit the fresh air, he escaped, and rushing into a room containing several prisoners, snatched a knife from the hand of one of them, gave him three wounds, and was only prevented from murdering him by the interference of those present. The public prosecutor saw in all this "*a criminal who sought in new crimes a justification of previous guilt.*" He was tried on the 25th of February, 1825, on two indictments—for murder, and for an attempt to kill.

At the bar, he was calm, though his countenance bore the marks of sadness. On being interrogated, he confessed the murder, but said he was not then himself. He repelled the idea of premeditation; said that he did not know the infants at all; and urged, that if he had designed to kill, he would have carried with him the knives brought from Mouy. Laboring under insanity, he committed the act, but its execution being completed, he became conscious of its enormity, and endeavored to escape.

It also appeared on the trial, that the father of Papavoine had been subject to attacks of mania during his lifetime, and that he was generally a morose, melancholy man.

As to the attack on the young man, the criminal stated that he was then in a state of fury irritated by his confinement and by bad treatment. The keeper of the prison deposed that Papavoine was sometimes in a most fearful fury; his hair literally bristled—he had never seen a person's hair in such a state; his countenance was highly inflamed, and he actually frightened the soldiers who surrounded him. Although believing at first that this was intended as a deception, the witness had been finally constrained to consider it as a real disease.

The public prosecutor, in his argument, endeavored to show that the present was a case of ferocity against the human race itself—a thirst for blood—which is sometimes seen, although fortunately the instances are rare. He aptly adduced examples from the history of revolutionary France.

M. Paillet, the advocate of the prisoner, dwelt much on the evidence of his previous illness, as indicative of a disordered state of mind. His misfortunes, his conversation with his mother, with his relatives at Beauvais, his hallucination concerning a person persecuting him and threatening his life, and the apparent want of premeditation in the murder, evidenced by the rapidity of his actions, all were urged in his favor; and the advocate expressed his decided conviction that this was a case of *mania without delirium*, as described by Pinel, in which the unfortunate subject is often hurried to commit atrocious crimes, from the current of ideas by which he is unwillingly haunted. Such persons often take strong aversion, and even hatred against individuals, in an instant, and without any assignable cause. Thus parents have sometimes murdered their children, and the wife her husband. Might he not then, at the moment of his several crimes, have been laboring under the access of fury incident to this disease? Let him be confined, so as to guard the public from further violence; but do not send him to the scaffold.

The jury, after retiring for half an hour, brought in a verdict of *guilty* on both indictments. He was condemned to death, and executed on the nineteenth of March.*

These remarks bring me to the last point to be considered under this section. I refer to the subject of *moral insanity*.

The idea of such a state was first advanced by Pinel, who characterized it by the name of *manie sans délire*, and observed that persons laboring under it appear to be governed by a sort of instinctive madness, as if the affections alone had suffered injury. Esquirol, when he wrote his valuable articles for the Dictionary of Medical Sciences, did not recognize this

* Causes Célèbres du XIX. Siècle, vol. i. pp. 203 to 290.

species, but he has since avowed having met with several cases in lunatic asylums, and is convinced of its distinct character.*

The dawnings of this melancholy affection, and the struggles of the understanding with it, will best be understood by the following quotations from Marc :—

“In a respectable house in Germany, the mother of a family, returning home one day, met a servant, against whom she had no cause of complaint, in the greatest agitation; she begged to speak with her mistress alone, threw herself upon her knees, and entreated that she might be sent out of the house. Her mistress, astonished, inquired the reason, and learned that whenever this unhappy servant undressed the little child which she nursed, she was struck with the whiteness of its skin, and experienced the most irresistible desire to tear it in pieces. She felt afraid that she could not resist the desire, and preferred to leave the house.

“This circumstance occurred about twenty years ago in the family of M. Le Baron Humboldt, and this illustrious person permitted me to add his testimony.

“A young lady whom I examined in one of the asylums of the capital, experienced a violent inclination to commit homicide, for which she could not assign any motive. She was rational on every subject, and whenever she felt the approach of this dreadful propensity, she entreated to have the strait-waistcoat put on, and to be carefully guarded until the paroxysm, which sometimes lasted several days, had passed.

“A distinguished chemist and a poet, of a disposition naturally mild and sociable, committed himself a prisoner in one of the asylums of the Faubourg St. Antoine. Tormented by the desire of killing, he often prostrated himself at the foot of the altar, and implored the divine assistance to deliver him from such an atrocious propensity, of the origin of which he could never render an account. When the patient felt that his will was likely to yield to the violence of his inclination, he hastened to the head of the establishment, and requested to have his thumbs tied together with a ribbon. This slight

* Note de Monomanie homicide, par M. Le Docteur Esquirol. Paris, 1827.

ligature was sufficient to calm the unhappy R., who, however, finished by endeavoring to commit homicide upon one of his friends, and perished in a violent fit of maniacal fury.”*

Other cases of a similar description are related by French and German writers. In some, the impulse to commit murder was only felt; while in others, as in mothers with their young infants, the desire at last became irresistible and they destroyed them. Nor is this confined to the puerperal period, when we might possibly suspect the presence of its peculiar insanity, but children of every age have been thus destroyed, both by fathers and mothers.

The following is one of the most dreadful on record, for the atrocity of the crime, and, as it is generally recognized as belonging to this division, may be here stated:—

Henriette Cornier, aged twenty-seven years, a domestic servant, was of a mild and lively disposition, always full of gayety and vivacity, and remarkably fond of children. In the month of June, 1825, a singular change occurred in her character. She became silent, melancholy, absorbed in reverie, and was soon dismissed from her service. She fell gradually into a permanent stupor. Her friends were alarmed, and suspected that she was pregnant, which, however, was not the case, but they could never obtain from her any account of the cause of her dejection, though she was frequently interrogated. In the month of September, she made an attempt to drown herself in the Seine, but was prevented.

In the following October, her relatives procured her employment at the house of Dame Fournier; but her conduct appears to have continued as before.

Without any change from this, she, on the 4th of November, committed the following act: She was desired by Dame Fournier, who went from home in the morning, to prepare dinner, and to go to a neighboring shop kept by Dame Belon, to buy some cheese. Henriette had frequently gone to this shop, and when there always caressed a beautiful little girl, nineteen

* Dr. Prichard, art. *Soundness and Unsoundness of Mind*, in *Cyclopedia of Practical Medicine*.

months old, the child of Belon. On this day she went, and displayed the greatest fondness for it, and persuaded the mother, who was at first rather unwilling, to let her take it out for a walk. She immediately took the child to the house of Dame Fournier, then empty, mounted the common staircase with a large knife which she took from the kitchen, and, stretching the child across her own bed, with one stroke cut off its head. This she placed by the casement, and then put the body on the floor near to it. All these proceedings occupied about a quarter of an hour; and during this time Henriette remained perfectly calm. Dame Belon presently came to seek for her child, and called her from the bottom of the stairs. "What do you want?" said the latter, advancing on the corridor. "I come to seek my child." "Your child is dead," replied Henriette with perfect coolness. The mother, alarmed, became more earnest, and she again pronounced the words, "Your child is dead." As Belon forced her way into the room, Henriette took the child's head from the casement and threw it by the open window into the street. The mother rushed out of the house, struck with horror. An alarm was raised; the father of the child, and officers of justice, with a crowd of persons, entered. Henriette was found sitting on a chair near the body of the child, gazing at it, with the bloody knife by her, and her hands and clothes covered with blood. She made no attempt for a moment to deny the crime—confessed all the circumstances, even her premeditated design, and the perfidy of her caresses, which had persuaded the unhappy mother to entrust to her the child. It was found impossible to excite in her the slightest emotion of remorse or grief; to all that was said, she replied with indifference, "I intended to kill the child."

Adelon, Esquirol, and Lévillé were appointed to visit her. After several interviews, these eminent physicians declared that they could discover no proof of insanity; yet they were not decided as to the non-existence of such disease.

Henriette was taken to the Salpêtrière. There she was repeatedly inspected by the physicians, whose last report concludes that, from February 25 to June 3, they had "discovered

merely a dejection of mind, slowness in the manifestation of thought, and profound grief; secondly, that the phenomena are explained by circumstances, and, therefore, are no proof of derangement; and thirdly, that the opinion as to her sanity is materially affected by facts relating to her previous history. If the allegation is proved that, long previous to the committal, her habits and her whole character were changed; that she had become, at a particular period, dejected, gloomy, taciturn, restless, prone to reverie, and had occasionally attempted suicide, it would seem that her present state is not the result of existing circumstances, since it has lasted a year before the commission of the act, in which case the opinion as to her sanity would be materially altered."

On the trial, M. Esquirol and several other physicians were examined. Their opinions leaned generally toward the presence of real derangement. The advocate-general treated the existence of monomania as a mere fancy, invented for the purpose of paralyzing the hands of justice. The jury brought in a verdict that Henriette had committed murder voluntarily, but without premeditation, and she was condemned to perpetual imprisonment with hard labor, and to be branded. She heard the sentence without betraying the least emotion.

It is a remark of Esquirol, that occasionally moral and physical causes can be assigned for this disordered state. In two cases it resulted from the change produced by puberty; but in many others it seems to be founded on imitation. The fatal propensities are excited by the description of criminal actions. In several cases where our author was consulted, it was evident that females of respectable standing, who were strongly impressed by the story of Henriette's murder, and the horror excited, had been seized with a similar propensity.

The following are enumerated by Dr. Prichard as distinguishing characters of this form of insanity, deduced from his own observations and those of Esquirol:—

"1. Acts of homicide, perpetrated or attempted by insane persons, have generally been preceded by other striking peculiarities of action, noted in the conduct of these individuals, often by a *total change of character*.

"2. The same individuals have been discovered, in many instances, to have attempted suicide, or to have expressed a wish for death; sometimes they have begged to be executed as criminals.

"3. These acts are without motive; they are in opposition to the known influences of all human motives. A man, known to be tenderly attached to them, murders his wife and children—a mother destroys her infant.

"4. The subsequent conduct of the unfortunate individual is generally characteristic of his state: he seeks no escape or flight; delivers himself up to justice; acknowledges the crime laid to his charge; describes the state of mind which led to its perpetration; or he remains stupefied and overcome by a horrible consciousness of having been the agent in an atrocious deed.

"5. The murderer has generally accomplices in vice and crime; there are assignable inducements which led to its commission—motives of self-interest, of revenge, displaying wickedness premeditated. The acts of the madman are, in some instances, premeditated: but his premeditation is peculiar and characteristic."*

Dr. Ray has given some additional characteristics: (*a*) The impulse to destroy is powerfully excited by the sight of murderous weapons, by favorable opportunities of accomplishing the act, by contradiction, disgust, or some other equally trivial and even imaginary circumstances. (*b*) The victims of the homicidal maniac are mostly either entirely unknown or indifferent to him, or they are among his most loved and cherished objects, and it is remarkable how often they are children, and especially his own offspring. (*c*) While the greater number deplore the terrible propensity by which they are controlled, and beg to be subjected to restraint, a few diligently conceal it, or if they avow it, declare their murderous designs, and form divers schemes for putting them in execution, testifying no sentiment of remorse or grief. (*d*) The most of them having gratified their propensity to kill, voluntarily confess

* Prichard, *ut antea*.

the act, and quietly give themselves up to the proper authorities; a very few only—and these to an intelligent observer show the strongest indications of insanity—fly, and persist in denying the act.*

Under this head of *moral insanity*, besides the impulse to murder, there is also included a propensity to break and destroy whatever comes within reach of the individual; “in short, an irresistible impulse to commit injury, or do mischief of all kinds.” And this is observed in cases in which it is impossible to discover any motive influencing the mind of the person who is the subject of it. “No illusive belief, for example, can be detected, that the lunatic is performing a duty in perpetrating that which manifests his disease.”†

Many cases of suicide are also classed under this head. In these instances, “there is generally no peculiar illusion impressed on the understanding of the self-destroyer, but a perversion of the strongest instinct of nature—self-preservation.” Again, the propensity of setting fire to houses or public buildings is ranked by Dr. Prichard under this head.‡ To these Orfila adds *monomaniacal robbery*; although he allows that, in this case, it is rather more difficult to show the want of motive.§

* Ray's Med. Jurisp. of Insanity, p. 230.

† Prichard.

‡ Jonathan Martin, who set fire to York Minster, and in consequence destroyed that splendid and venerable relic of antiquity, does not belong to this class. He was undoubtedly a *monomaniac*, and stated that he was inspired by a dream to do it, so that people would go to other places to hear the gospel. (See Medico-Chirurgical Review, vol. xv. p. 222; and Shelford on the Law of Lunatics, p. 458.)

§ Leçons, vol. ii. p. 65, second edition. There is a curious case given in the Annales d'Hygiène, vol. iii. p. 198, and styled *Monomanie érotique*. The individual was in the constant habit of writing love-letters, sometimes to the highest females in rank in France; and although repeatedly confined in prisons and in asylums, he as invariably recommenced when released. He was examined by Esquirol and Marc, in 1826, and they positively state that they could find no proof of mental alienation in his moral affections—no incoherence in language or reasoning, and nothing in his physical appearance. The only remarkable circumstances were his denial of having written any letters—though he had probably sent hundreds—and his deeming himself the object of persecution. They conclude by considering him subject to intermittent madness.

The cases of Papavoine, Cornier, and others, to which I will hereafter refer, have excited great interest on this subject in France, and numerous publications have been the result. In that country, Esquirol, Gall, Broussais, Orfila, Andral, Marc, Georget, Michu, and many others, have avowed their belief in the various forms of homicidal insanity which I have now described; while in England, Prichard and Elliotson, and, I doubt not many others, are among the supporters of the doctrine. Dr. Woodward, the able physician of the State Lunatic Asylum of Massachusetts, and Dr. Ray, have, in this country, published their coincidence with it.*

On the other hand, Regnault and Collard de Martigny, two advocates, have opposed it strongly in their writings.†

The main scope of their argument is, that most of these cases are only the evidence of depraved passions, and while they allow that some are correctly styled maniacal, and therefore do not bring these into controversy, they assert that all countries have at various periods presented criminals, whose actions in every respect resemble those of the homicidal monomaniacs of the present day. Nero and Tiberius, Robespierre and Collot D'Herbois, say they, had as much a thirst for blood as Papavoine or Cornier. The malignant passions also concentrate on a single idea; and though the individual is under their influence, yet on points not connected with the prevailing idea, he will appear calm and intelligent.

To the argument that the monomaniac has no motive to urge him to crime, it is answered, that even criminal murderers do not all destroy for money. In many of the instances of supposed insanity, early debauchery, with a profound ignorance of the obligations due to God and man, marks the character. Such persons may acquire a passion for blood. The desire to kill exceeds the desire to obey the laws.

* Fourth and Fifth Reports of the State Lunatic Hospital at Worcester. Ray's Medical Jurisprudence of Insanity.

† Regnault, *Du Degré de Compétence de Médecins, etc.*; and Nowelles, *Réflexions sur la Monomanie, etc.* See also his reply to a review of his first work, in *Annales d'Hygiène*, vol. iii. p. 231. Collard de Martigny, *Sur la Monomanie-Homicide et la Liberté Morale*.

The frequency of cruelty in children, the tournaments of former times, the gladiators of Rome, the bull-fights of Spain, and the fondness for witnessing executions in all civilized countries, are urged as proofs that this disposition can be extensively and permanently encouraged. Above all, they object to the act itself being deemed the material proof of the presence of insanity. Because one person murders another without any assignable motive, is the criminal by consequence to be considered a maniac?

The authors whom I have quoted on the other side adduce a multitude of facts in favor of their position. They present the narratives of the respective cases—the termination of many of them in raging mania or dementia, and the remarkable change of character that so often occurs.

Esquirol asks, if the intellect can be perverted or abolished, why may not the will? Leuret, in his reply to Regnault, observes that there are instinctive impulses which deprive a man of liberty, but not of conscience. The criminal has conscience, liberty, will; the monomaniac, conscience without liberty. Thus some will withdraw themselves, when they feel the disposition for committing injury. If this reasoning be correct, can such a person be held responsible for his actions, even if he knows what he is doing?

There are, however, many others who go far beyond these experienced observers, and seem disposed to include all crime under the category of insanity. Professor Friedreich lays down this dictum: "Plus l'acte est atroce, plus l'irresponsabilité devient probable." A Review in England, important as the organ of a party in political ethics, uses these words: "The public mind is awakened to the fact that *all crimes are the result of perversions of intellect, and, like other species of insanity*, deserve to be treated with more of compassion than vengeance." In Germany, the following question has been gravely discussed among its medical jurists: If monomania consists in a subjection of the intellectual faculties to one predominant idea, ought we not to regard a person monomaniacal whose mental faculties are governed by a vivid affection—a violent passion? or, in other words, is the existence of

monomania to be conceded, whether the reason is affected by an erroneous conviction or a *violent passion*? The answer to this is generally in the negative, yet some contend that there is a mixed diseased state of the mental faculties, a blending of passions and insanity.*

* Friedreich, in *Annales d'Hygiène*, vol. xiv. p. 460; Westminster Review, vol. xxiii. p. 222, American edition; Taufflieb, in *Annales d'Hygiène*, vol. xiv. p. 187. To illustrate the far-spread speculations of the Germans on this subject, I may add that Professor Heinroth insists that moral depravity is the essential cause of insanity. With him, guilt and sin are its real sources.

Most of my readers will recollect the dreadful murders committed not long since in the County of Kent, in England, under the direction of the maniac Thom. His followers came justly under the power of the law; and in excuse of their conduct, Dr. Hall ushers before the public the following doctrines promulgated by Dr. Hunt: "The fact to which I allude is this—that there is a species of insanity, of a *contagious* nature, and of a *temporary* duration, totally unconnected with diseased structure, but yet evidently consisting in a suspension of the healthy action of the intellectual function of the cerebellum—a disease which will certainly yield to circumstances, and which ought not, on any pretence, to become the subject of judicial retribution. I have seen many such cases; they are closely allied to the contagious hysteria of hospitals, and are chiefly, but not wholly, confined to the female sex. They are commonly connected with extravagant notions of religion. I should not hesitate to say that the late Rev. Mr. Irvine, and nearly all his followers, were the subjects of monomania of a contagious nature. What I wish now particularly to urge is, that those poor deluded men, who are about to be tried for murder, are, in fact, now as harmless and as innocent as any of her majesty's subjects; and as their leader was once pardoned for perjury, being insane, so, *a fortiori*, these poor fellows ought to be pardoned on the same ground. He might have been a desperate impostor; *they*, to believe his lies, *must* have been temporarily insane. The cause of their insanity being removed, the effect has ceased. Out of about 1500 persons in the neighborhood, who believed in his pretensions, not one, I believe, remains deluded *now*. That they caught the disease of him, as the small-pox and typhus fever are sometimes supposed to be caught, through the medium of the nervous system, I cannot entertain a doubt." (*Lancet*, N. S., vol. xxii. p. 453.) *What an admirable defence of mobs and Lynch law!*

Dean Tucker, domestic chaplain of Bishop Butler, the author of the "Analogy," relates that in one of their conversations at Bristol, the bishop asked him the following question: "Why might not whole communities and public bodies be seized with fits of insanity, as well as individuals?" "My lord, I have never considered the case, and can give no opinion concerning it." "*Nothing but this principle, that they are liable to insanity, equally at least with private persons, can account for the major part of those transactions of which we read in history.*" (*Quarterly Review*, vol. lxiv. p. 186, American edition.)

To such doctrines and their consequences, let me interpose the remarks of the judicious Andral.

"It is only where the insanity, at the time of committing the crime, is quite unequivocal, that the individual should be saved from the penalty. The interests of society must be regarded, and we must act upon the minds of men by examples of severity, so as to make an impression, and restrain others by a salutary fear. I have dwelt upon this point the more, because I think that of late medical men have fallen into the error of laying too much to the charge of insanity as regards crime."*

Again: "There are some who hold that the mere act of a party, without any corroborating circumstances, is sufficient to indicate sanity or insanity, and to justify responsibility or the contrary. Such persons, we presume, would have pronounced this prisoner insane, and therefore irresponsible, since her act was committed without motive, and against all the common feelings of humanity. We cannot hold with this doctrine. It is true, that crime is rarely committed by a sane person without motive, but there are numerous cases, in which we are unable to trace the motive, and were we, on the principle assigned, to allow of irresponsibility on these occasions, we should be assuredly overthrowing one of the great barriers established for the protection of society."†

"Some writers have called this moral insanity, or instinctive homicidal mania, (*mania sine delirio*), and have accumulated instances of fond parents murdering their children, husbands their wives, and servants their masters. The difficulty to the admission of such a state appears to us to consist in the fact that the insanity is pleaded for the crime only, that it did not exist before or after its perpetration, and that it may thus

* Lectures, London Med. Gazette, vol. xviii. p. 811.

† British and Foreign Med. Review, vol. iii. p. 535. That the bar is equally becoming startled at the extent to which the new doctrines on insanity are carried, is evident, I think, from the publication of Mr. Stock on the Law of Non-Compotes Mentis, London, 1838. See a review of this work in the London Law Magazine, vol. xx. p. 1.

be converted to a specious means for totally exempting criminals from punishment."*

As a corollary to all this, may I make the following suggestion: Why should it not be enacted that the MURDER (for all the difference of opinion is only about this) shall not be the first and earliest proof of the Insanity?

As a conclusion to this subject, I will state two cases that have lately occurred in this country. Their resemblance to several of the narratives that I have already given will be readily recognized.

Abraham Prescott, of Pembroke, New Hampshire, was recently tried for the murder of Mrs. Sally Cochran. He was eighteen years of age, and had resided for several years in the family of the deceased. On the 6th of January, 1833, he made an attempt on the lives of Cochran and his wife, at midnight, and while they were asleep; but the blows which he gave with an axe were fortunately not fatal. The case was considered one of destructive somnambulism, as there was no previous malice exhibited. On the 23d of June, 1833, he accompanied Mrs. Cochran to a field, for the purpose of gathering strawberries. He came upon her unawares, and murdered her, by beating her head with a stake, after which he dragged the body about two rods from the scene of violence, where it was concealed in brushwood. Very soon afterwards the husband ascertained from Prescott himself, on asking where his wife was, what he had done. "I ordered him," says Mr. Cochran, "to run and show me where she was. He was loth to go, but finally started, and on the way stated that

* British and Foreign Med. Review, vol. x. p. 143. "We must confess, that great as is our deference to Dr. Prichard's superior observation, we have some difficulty in admitting the existence of any form of moral insanity disjoined from some degree of mental infirmity, less perceptible in the slighter cases, but manifest in the severer." (British and Foreign Med. Review, vol. vii. p. 6.)

I am pleased also to add the following remarks of Dr. Ray, American Jurist, vol. xxii. p. 321: "Where this affection is alleged in excuse for crime, it must be proved, first, that it was really present; secondly, that it had arrived to that stage in which its impulses are irresistible; thirdly, that it should be the exclusive cause of the criminal act."

he had the toothache, sat down by a stump, fell asleep, and that was the last he knew, until he found that he had killed Sally."

Soon after being arrested, in conversation with the coroner, the prisoner confessed the crime with which he was charged, and that officer further stated the language held by him. "He and the deceased went out into James Cochran's pasture together, from thence down into the brook field; that when about to return home he made her a proposal, which she indignantly repelled, calling him a rascal, etc., and said she would tell her husband, and he would be punished. The prisoner then sat down on a stump—considered his situation—thought he must go to jail for his offence, and had as lief die as go there. Saw a stake near him, caught it up and killed her."

The prisoner, on his indictment, pleaded not guilty, and his counsel set up the defence of insanity.

He was described as a moody, odd sort of person. It was also proved that there was a hereditary predisposition to insanity in the family on the paternal side, exhibited in the grandfather and one or two of his brothers, the granduncles of the prisoner.

His parents testified that when an infant, six weeks old, his head began to enlarge, and at three years was as large as his father's. He suffered with sores in his infancy, and was very much addicted to sleep-walking.

Drs. Wyman and Parkman (the perusal of whose testimony I particularly recommend) gave the result of their extensive experience on the subject of hereditary insanity, illustrating its great frequency, and the predisposition to its occurrence that thus existed. Dr. Wyman has been sixteen years physician of the McLean Asylum for the Insane, in Charlestown, Massachusetts, and I was hence struck with one of his answers. "Insanity is sometimes manifested by a sudden disposition to violence, and sometimes to great violence, but I do not remember that I have seen any case where the first symptom was a disposition to kill."

Dr. Cutter, who had for a number of years kept a private

asylum, corroborated the opinion of the other medical witnesses. Hereditary insanity may manifest itself, he observed, without any known cause. It is often sudden and intermittent, and is sometimes accompanied by an irresistible disposition to commit violence.

The jury found the prisoner guilty.*

The other case was that of Major Mitchell, tried before the supreme judicial court of the State of Maine, in November, 1834, for assaulting and maiming a boy aged eight years, and named David F. Crawford.

Mitchell was eleven years of age. It appears that he induced Crawford, by threats, to go with him and gather some flags. In a very short time he began to whip the boy. A neighbor heard the crying, and took the prisoner off, and sent Crawford home. Mitchell, however, intercepted him, and, after various threats, carried him into the woods, threw him into the bushes, then carried him to a pond and thrust him in, took off his clothes, tied his hands, and then whipped him severely with withes. Finally, he took a piece of sharp tin and cut out one of his testicles. His cruelty did not cease even with this, as he afterwards continued to beat him.

On the trial, the counsel for the defendant stated that he would prove that the prisoner, in early infancy, had received a dangerous hurt on the top of his head, and that a striking malformation of that part was now present; but owing to the absence of the parents of Mitchell, a part of this was not corroborated. Dr. Mighels, of Portland, however, deposed that there was an unusual appearance in the construction of the head—a palpable depression on the cranium, and the right ear was lower than the left.

Mr. Bailey, at whose school Mitchell had attended for about two months, swore that he could read in spelling lessons, but not in reading lessons. He did not learn so fast as others did, but made improvement. "He was more sly than other

* I am indebted for the facts in this case to the Boston Medical and Surgical Journal, vol. xi. p. 361. On referring to the account of the trial, with which I was favored by Dr. L. V. Bell, I find the above abstract to be entirely correct.

boys; he would watch me narrowly, and was mischievous when I turned my back. Punishment influenced his conduct. I do not consider him so bright as others, but far from being a fool." He had been punished for quarreling.

The jury found the prisoner guilty, and he was sentenced to nine years hard labor in the State prison.

The reporter of this case (Mr. Otis) observes that many are of opinion "that utter fatuity in this convict is inferable, first, from the very circumstances of the case, as made out upon the trial; next, by the manner and terms of the boy's conversation in reference to the revolting subject of his crime; and lastly, by his present appearance, his past history, and peculiar physical conformation."*

* Report of the trial of Major Mitchell, etc., by James F. Otis, attorney-at-law, Portland, 1834. Also Boston Medical and Surgical Journal, vol. xi. p. 404. I will in this place add references to additional cases; but I must premise, that while some are clearly referable to Dr. Prichard's *moral insanity*, others are at least verging to *monomania*; and the reason probably of this is, that on the continent they have universally received the general appellation of *homicidal monomania*, *suicidal monomania*, *infanticidal monomania*, etc. etc. And this is probably in deference to Esquirol, who, in his *Note sur la monomanie-homicide*, p. 4, makes a division of this form of disease. Some of these insane murderers, according to him, are prompted to the act by a delusion—by false reasoning—by a delirium; others again exhibit no appreciable alteration of the intellect or affections; they are impelled by a blind instinct—an idea which forces them to acts of violence. Now the first class is undoubtedly *monomania*, and should not be connected with the others. Dr. Prichard very justly condemns the union, since the very term *monomania* implies a *partial illusion*, the absence of which is the essence of his *moral insanity*. When, however, we proceed to analyze the cases, some difficulty will be experienced in classifying them. I content myself with indicating such as are worthy of examination.

Many are contained in the three pamphlets of Georget—*Examen Médico-légale*, *Discussion Médico-légale*, and *Nouvelle Discussion Médico-légale*. (Esquirol and Michu on *Monomanie-Homicide*.)

Orfila's *Leçons*, vol. ii. pp. 52 and 66, second edition.

Annales d'Hygiène, vol. i. p. 126. Three cases at Charenton, selected by Esquirol. (Vol. ii. p. 392.) A murderer of his wife, examined by Esquirol and Ferrus. (Vol. iii. p. 418.) Case by Professor Grossi, of Munich, a man seventy years old, who killed his two children and shot his servant. He was confined, and died within the year, of dementia. (Vol. vii. p. 173.) Criminal propensities of a child, aged eight years. (Vol. viii. p. 397.) An extraordinary case of child-murder, by Dr. Reisseissen, with observations

[The subjoined extracts, from recently published charges of distinguished judges, will show that the law, as to the criminal responsibility of the insane, is entirely unsettled.

by Marc. (Vol. ix. pp. 431, 438.) Homicidal monomania. (Vol. xi. p. 242; vol. xii. p. 127; *ibid.*, p. 94.) Arson by an uneducated girl, who was passionate and deemed a fool. (Vol. xiii. p. 220.) Case of Nonnent, a raving madman. (Vol. xiv. p. 154.) Taufflieb, on the present state of medico-legal doctrines on insanity in Germany. (*Ibid.*, pp. 389, 426; vol. xv. p. 128.) A young man, murderer of his brother, sister, and mother. There was hereditary insanity in the family, and he had been of a moody disposition from childhood upwards. This is a very interesting case, showing how a desire of eclat enters into the mind of the maniac. (Vol. xv. p. 121.) On homicidal monomania, by M. Cazauvieilh. (Vol. xvii. p. 374.) A pregnant female murdering two of her children, at various times, by blows and other severe treatment. This is the history of a passionate woman, and the only extenuating circumstance I can find is that several of her relatives had become insane. The decision of the medical examiners was as follows: "Déclarons qu'il est possible que la femme R. ait agi par suite de quelque affection ayant troublé momentanément, l'exercice de ses facultés mentales." She was condemned to six months imprisonment. (Vol. xviii. pp. 219, 374.) A female guilty of many acts of theft. She was fifty years of age, of excellent character, and easy property. On arriving at Paris, she committed numerous larcenies at shops. Esquirol and Marc, to whom the case was referred, reported in favor of her being monomaniacal. She had been previously subject to puerperal mania. (Vol. xx. p. 435.) Cases by Esquirol. (Vol. xxiii. p. 204.)

American Jurist, vol. xiv. p. 253, vol. xv. p. 82, vol. xvi. pp. 43, 315, 341. Essays, principally by Dr. Ray, vol. xxii. p. 27.

Trial of Sir Alexander G. Kinloch, for the murder of his brother, at Edinburgh, in 1795, in State Trials; and Gordon Smith on Medical Evidence, p. 334.

Edinburgh Medical and Surgical Journal, vol. xii. p. 380. A man, in perfect health, awoke insane out of sleep, and attempted to kill his wife. He recovered by an emetic, in a few hours, and has never been insane since. (*Ibid.*, vol. xxxviii. p. 49.) Case of Stirrat, convicted at Glasgow of the robbery and murder of his aunt, but reprieved on the ground of weakness of mind.

Ibid., vol. xlvi. p. 443. Case by Marc, of Augusta Strohm, of Dresden, who was incited to murder, by seeing several persons executed. (From the Memoirs of the Royal Academy of Medicine.)

Medico-Chirurgical Review, vol. x. p. 226. Cases of homicidal mania, etc., in Paris, by Barbier, Esquirol, Marc, etc. Vol. x. p. 482; *do.*, including the cases of Cornier, Schmitt, a parricide, Tristel and several others. Vol. xiii. p. 244. Homicidal and infanticidal mania; cases by Professor Outrepont, of Wurtzburg. Vol. xiii. p. 441. Cases of infanticidal monomania at Copen-

On the one side, the ground taken by Judge Edmonds, Judge May, and C. J. Shaw is exactly what the present state of science demands, and will entirely satisfy every judicious expert.

On the trial of Klein, the Court (Judge Edmonds) held: "If he have not intelligence and capacity enough to have a criminal intent and purpose, and if his moral or intellectual powers are so deficient that he has not sufficient will, conscience, or controlling mental power, or if through the overwhelming violence of mental disease his intellectual power is for the time obliterated, he is not responsible."

On the trial of Brown, Judge May* said: "If his reasoning powers were either so deficient that he had no will, no conscience, or controlling power; or if, through the overwhelming power of mental disease, his intellectual power was for the time being obliterated, he was not punishable."

On the trial of Rogers, A.D. 1843,† C. J. Shaw said: "If his reasoning powers are so deficient that he has no will, conscience, or controlling power; or if, through the overwhelming

hagen, by Dr. Otto. Vol. xiv. p. 74. Similar case by Dr. Hawkins, of London. Vol. xxxii. p. 84.

Dr. Blake on the case of Greensmith, who strangled four of his children.

New York Medical and Physical Journal, vol. iii. p. 250. Case of Kirby, who drowned two of his children.

London Medical Repository, vol. xxvi. p. 454.

Lancet, N. S., vol. viii. p. 135. Case by Dr. Elliotson. Vol. xi. p. 577. Andral's Lecture on Murder-Madness.

London Medical Gazette, vol. xii. p. 80. A girl, aged sixteen years, set fire to her master's house, without any apparent motive. Her previous character was good, but she had always been reserved and taciturn. She had never menstruated. In January, 1832, she was in the Chichester Infirmary, laboring under measles and low fever. Her trial came on at the Lewes assizes, in March, 1833. Dr. King and other medical gentlemen, though they had not seen her, gave it as their opinion that severe illness might have caused imbecility of mind.

Probably I may add to these the case of Gilbert, tried in New York, some years since, for murdering his wife. He had injured his head at a considerable time previous, and was deemed insane by several of his neighbors. His wife deserted him. He went to New York, and finding her in an equivocal situation in a bawdy-house, stabbed her with a knife.

* American Journal of Insanity, vol. xiii. p. 249.

† 7 Metcalf, Com. v. Rogers.

violence of mental disease, his intellectual power is for the time obliterated, he is not punishable. If he has a knowledge that the act is wrong and criminal, and mental power enough to apply that knowledge to his own case, he is punishable.

"Did the prisoner, in committing the homicide, act from an irresistible and uncontrollable impulse? If so, the act was not that of a voluntary agent, but the involuntary act of his body, without the concurrence of a mind directing it. The act was the result of disease, and not of a mind capable of choosing; of uncontrollable impulse, and not of a person acted on by motives, and governed by a will."

Nothing can be more clear, nothing more entirely in consonance with the views of all the best writers on insanity than this admirable charge; but, unfortunately, nothing can be more entirely and irreconcilably opposed to the doctrines on this subject laid down by other judges, both in England and America.

On the trial of Pate, for striking Queen Victoria, 1849, Baron Alderson: "He (the prisoner) ascribed his conduct to some momentary uncontrollable impulse. The law does not acknowledge such an impulse; if the person is aware that it was a wrong act he was about to commit, he is responsible."*

On the trial of Huntington, 1857, Judge Capron returned to the old test of knowing right from wrong. "If," said he, "though somewhat deranged, he is yet able to distinguish right from wrong in the particular case in which crime is imputed to him, and to know that he is doing wrong, the act is criminal in law, and he is liable to punishment."† While preparing this edition for the press, I was favored with a note from Wm. Curtis Noyes, Esq., the counsel who prosecuted Huntington, from which I make the following extract, as giving the deliberate convictions of that able jurist: "My opinion is, that the party must be convicted, if he knew that he was doing wrong, and any peculiarity or deficiency of mind at the

* Blackwood's Magazine, November, 1850, p. 569.

† Report of trial of C. B. Huntington, N. Y., 1857.

time can only be considered by the court in inflicting sentence, or by the Executive on an application for a pardon. I think this is the law, and that it is essential to public and private security."

Again, C. J. Hornblower, in *Com. v. Spencer*, 1 Zabriskie, 198, says: "It is not every kind or degree of insanity that will render a man irresponsible. If the prisoner, at the time of committing the act, was conscious that he ought not to do it, he is responsible, though on some subjects he may be insane at the time."

So Judge Curtis, in *U. S. v. McGlue*, 1 Curtis' U. S. Reports: "The test" of insanity "is the capacity to distinguish between right and wrong as to the particular act with which he is charged. Clearly, it is not every kind and degree of insanity that is sufficient to exempt from punishment."

Baron Alderson, *Rex v. Pate*, above referred to, took the same ground the more elaborately: "You must clearly understand that it is not because a man is insane that he is unpunishable; and I must say that upon this point there exists a very grievous delusion in the minds of medical men."

Here we have it distinctly stated that "it is not because a man is insane that he is unpunishable;" "it is not every kind and degree of insanity that exempts from punishment."

In 2 Greenleaf on Evidence, p. 296, a higher degree of insanity must be proved to absolve from punishment, than to discharge from the obligation of a contract.

Now, on the trial of Theodore Wilson, in York County, Maine, 1836, the court charged the jury that if they were satisfied the prisoner was not of sound memory and discretion at the time of committing the act, they were bound to acquit.*

Again, on the trial of Corey, Ch. J. Richardson stated, in his charge to the jury, that the only question for them to settle was whether the prisoner was of sane mind when the deed was done.

The same language was used by the same court on the trial of Prescott, (1834.)† Truly, amid such a conflict of judicial

* Ray, p. 54.

† Ibid., p. 49.

dicta, it does not seem very extraordinary that "grievous delusions should exist in the minds of medical men."*—C. R. G.]

IV. *Of inferior degrees of diseased mind.*

There are several forms of disease which, either in a partial or temporary manner, bear a strong resemblance to insanity. The diagnostic appearances of such deserve a brief notice, accompanied with a consideration of the question, how far the mental alienation may be presumed to extend in each.

The *delirium* of fever is one of the most striking, and in its general characters usually resembles mania. It is, however, distinguished by its antecedent or accompanying disease; the sensibility of the sight and hearing; turgescence and redness of the eye; tremor of the tongue; gnashing of the teeth; and heat of the skin. These peculiarly characterize the alienation accompanying synocha and its consequences. "In delirium all the powers of the mind are implicated, and besides remain unconnected until it ceases."† The mind is literally a chaos, and is occupied in succession by numerous phantasies. There is no one predominant idea.

The shortness of its term, its evident connection and dependence as a symptom on an obvious bodily disease, and the almost total abolition of the mental faculties, are decided diagnostics.‡

The unconsciousness that accompanies the low delirium of typhus, shows how profound is the disorder that weighs on the mind.

In the former case, suicide and murder are often committed while laboring under it; and in both, the actions must be estimated like those of the maniac. There is, however, another species of delirium, independent of fever, at least of its most

* Baron Alderson, *ut supra*.

† Halford's Essays, p. 122. The return to a sane mind just before death, which occasionally occurs in brain fever, is admirably described at p. 88.

‡ Georget, *De La Folie*, p. 237. Brierre De Boismont has, not long since, pointed out the occurrence of acute delirium in insane patients. This can certainly be only a consequence or symptom of cerebral inflammation, either acute or chronic. See *Medico-Chirurgical Review*, 1845, vol. ii. p. 228.

striking characters, which deserves notice. It is consistent with a knowledge of surrounding objects, but the mind rapidly returns to its flights of romance or wildness. It has sometimes been termed *light-headedness*, and is admirably pictured in Massinger's play, "A Very Woman." At intervals, there will be a temporary return to sanity. It is evidently connected with, and, unless checked, must end in, disease of the brain or its membranes.

Hypochondriasis, on the other hand, has many points of similitude to melancholy. Those who are affected with it are usually of a lax fibre, and engaged in sedentary occupations. There is a languor and want of resolution that accompanies all their undertakings, and a cast of sadness and timidity generally marks the countenance. As to all future events, says Cullen, in his graphic sketch of this disease, there is a constant apprehension of the worst or most unhappy state of them, and, therefore, there is often, upon slight grounds, an apprehension of great evil. "*Such persons are particularly attentive to the state of their own health—to even the smallest change of feeling in their bodies.*" He also remarks that hypochondriasis is always accompanied with dyspeptic symptoms, and in elucidation of the diagnosis between it and melancholy, presents the following observations: "When an anxious fear and despondency arise from a mistaken judgment with respect to other circumstances than those of health, and more especially when the person is at the same time without any dyspeptic symptoms, every one will readily allow this to be a disease widely different from both dyspepsia and hypochondriasis." "As an exquisitely melancholic temperament may induce a torpor and slowness in the action of the stomach, so it generally produces some dyspeptic symptoms; and from thence there may be some difficulty in distinguishing such a case from hypochondriasis. But I would maintain, however, that when the characters of the temperament are strongly marked, and more particularly when the false imagination turns upon other subjects than that of health, or when, though relative to the person's own body, it is of a groundless and absurd kind, then, notwithstanding the appearance of some

dyspeptic symptoms, the case is still to be considered as that of a melancholy, rather than a hypochondriasis."*

Foderé mentions the following circumstances, as distinctive of these diseases: The habit of body; the illusion, as illustrated in the above quotation from Cullen, one being relative to physical subjects, and the other to moral ones—the species of fear; that of the melancholic being reserved and prudent, and not destructive of his courage; while that of the hypochondriac renders him credulous, variable, and timid. He is in every respect selfish; while the melancholic, although laboring under the pressure of his disease, often retains noble sentiments.†

The hypochondriac, says Andral, becomes *conscious of various acts of his physiological life*, of which he is not ordinarily sensible. But these acts are not deranged. It is only the perception of them that is exaggerated.‡

Dr. Burrows takes a capital distinction, which may greatly aid the examiner in discriminating. "The maniac is too furious and irritable to describe any complaint; the melancholic is generally disinclined to do so; but the hypochondriac's chief solace is in a detail of all his feelings and pains, real and imaginary."

It rarely, he adds, does mischief to let the insane know you are fully apprised of the nature of their malady. But beware of giving a hypochondriac reason to think his mind is deranged; it is the surest way to make it so.§

Hypochondriacs often talk of, and sometimes attempt, suicide, but rarely have courage enough to complete it.|| They are generally aware of the nature of criminal acts, and should be judged accordingly. But it must be remembered that this disease, as well as hysteria, when of long standing, or severe, often degenerate into insanity, and indeed are sometimes its first degree.¶

* Cullen, quoted by Smith, pp. 423, 424.

† Foderé, vol. i. p. 232.

‡ Lancet, N. S., vol. xi. p. 550.

§ Burrows' Commentaries, p. 480.

|| Parkman.

¶ "When a hypochondriac fancies his legs are made of glass, or his head is larger than his body, or if he labors under any similar erroneous belief,

Hallucination. "An idea reproduced by the memory, associated and embodied by the imagination."* This state of mind is styled *illusion or waking dreams* by Dr. Rush, and it is strikingly illustrated in the remarkable story of Nicolai, of Berlin, who for a length of time was visited at his bedside by individual forms that were visible to his sight, and addressed him. During all this period, however, he was conscious that it was a delusion.† Had he believed in the existence of these phantoms, says Haslam, and acted from a conviction of their reality, he ought to have been deemed insane. A more familiar illustration is given by Collinson, and I presume there are many of my readers who, at one time or another, have experienced a somewhat similar state of mind. "Ben. Jonson, the celebrated dramatist, told a friend of his that he had spent many a night in looking at his great toe, about which he had seen Turks and Tartars, Romans and Carthaginians, fight in his imagination."‡ If this had become permanent in his mind, he would have been deemed insane.

I can hardly imagine that this form of diseased mind can ever become a subject of legal investigation; but it may be remarked that many maniacs have hallucinations resembling those we have noticed. They are sometimes transient and confused, and at other times will grow permanent and fixed.§

Epilepsy. I mention this, because it is a disease that, when long continued or violent, is very apt to end in dementia. It gradually destroys the memory and impairs the intellect. Lord Eldon, indeed, expressly recognizes this disease as one of the causes of "*unsound mind*." "Epileptic fits," says he,

he is insane." (Prichard.) Hypochondriasis, says Sir Henry Hallford, is not accompanied by delusions, though its nervous fears are sometimes as gratuitous and ill founded.

* Parkman.

† The narrative by Nicolai himself, is given in Haslam's Medical Jurisprudence of Insanity, p. 303.

‡ Collinson on Lunacy, vol. i. p. 34.

§ On the subject of apparitions, or *spectral illusions*, see Hibbert, Alderson and Ferriar's Essays. Bostock's Physiology, vol. iii. pp. 91, 161; Edinburgh Journal of Science, vol. ii.

"for instance, may produce a mind in the same state, at a much earlier period."*

Epilepsy may, indeed, be attendant on every form of insanity. Of 289 epileptics at Salpêtrière, in 1815, 80 were maniacal, and 56 imbecile or in a state of dementia.† "Of all the modifications of mental derangement, there is none so terrible as that complicated with epilepsy. Maniacal epilepsy is usually characterized by the most ferocious, malign, and murderous paroxysms, and often it is as instantaneous as it is violent. The effects are sometimes directed against themselves, oftener against others, and not unfrequently to the immolating of all whom they most love when sane."‡

Thomas Bowler was tried at the Old Bailey, in 1812, for wounding one Burrows with a blunderbuss, under circumstances that indicated considerable ill will against the prosecutor, as well as design in the execution of his purpose.

The defence set up was insanity, occasioned by epilepsy. It was proved by his housekeeper that he was taken with a violent epileptic fit in July, 1811, and that from that period she had perceived a great alteration in his conduct and demeanor. He would frequently dine at nine A.M., eat his meat almost raw, and lie on the ground exposed to rain. His spirits were so dejected that it was necessary to watch him, lest he should destroy himself.

A commission of lunacy was also produced, showing that the prisoner had been found to be insane, since the 30th of March last.

Sir Simon Le Blanc, before whom the trial took place, charged the jury, that it was for them to determine whether the prisoner had the power of distinguishing right from wrong, or whether he was under the influence of any illusion with respect to the prosecutor. A verdict of guilty was returned.§

After these remarks, I need hardly urge the necessity of

* Ridgway v. Darwin, 8 Vesey's Reports, p. 87.

† Devergie, vol. ii. p. 958.

‡ Burrows, p. 155.

§ Starkie on Evidence, vol. iii. p. 1704.

watching the effects of this disease on the mind from time to time.

Nostalgia. This is a form of melancholy, originating in despair from being separated from one's native country. I have already noticed its leading characteristics, and will only add that suicide is sometimes a consequence. Individuals laboring under it seldom (if ever) commit violence on others.

Intoxication. Delirium tremens. It is a well-known and salutary maxim of our laws that crimes committed under the influence of intoxication do not excuse the perpetrator from punishment. The temporary alienation has been voluntarily induced, and the individual is the more inexcusable if, by previous experience, he has learnt that his angry passions are inflamed through its means.*

* "To admit drunkenness as a defence, or even to allow it publicly as a mitigation, seems extremely dangerous. But as the example of punishment does not influence a man who is drunk, any more than one who is mad, it is plain that to hang a man for what he does in such circumstances is to make drunkenness, when followed by an accidental consequence, a capital offence. This execution will not deter drunkards from murder, it only deters men who are sober from drunkenness." *Sir James Mackintosh*, (Life by his son, vol. ii. p. 27, American edition.) This is strongly put; but if conceded, may not the same defence be made in most cases of murder, committed not merely during the heat of passion, but after continued deliberation? Is it not a legitimate deduction from this reasoning, to assert that to hang a man, under such circumstances, is to make *violent passions, when followed by an accidental consequence, a capital offence?*

[It is not a little curious, and is no small compliment to the sagacity of Dr. Beck, that the very evil he apprehended from the doctrine of Mackintosh has, since he wrote, arisen, and has received judicial sanction. In 1848 a man named Eastman was indicted for the murder of one Brereton. It appeared that Brereton and a cousin were driving cattle along the public road, when an affray arose between them and the defendant; violence was used, but no serious injury was sustained. The Breretons proceeding along the road, were followed by Eastman and a companion, armed with clubs and threatening to kill them. They soon came up, made an attack; Brereton was struck with a club, of which wound he died. It was further proven, that Eastman had been rude and violent to other passers-by. A witness was asked whether in his opinion Eastman was drunk at the time. This question being objected to, the objection being sustained by the Court, prisoner's counsel appealed. The Supreme Court sustained the decision of the court below, when the case was carried to the Court of Appeals. Mitchell, J. If a man drink to drown his conscience, or nerve

In *Ridgway v. Darwin*, Lord Eldon cites a case where a commission of lunacy was supported against a person who, when sober, was a very sensible man, but being in a constant state of intoxication, he was incapable of managing his property.*

In the State of New York we have a statute which places the property of habitual drunkards under the care of the chancellor, in the same manner as that of lunatics. The overseers of the poor in each town may, when they discover any person to be a habitual drunkard, apply to the chancel-

himself up to the commission of crime, he does but aggravate his offence; but if a man has lost his senses, he has ceased to be accountable to the criminal law, whether the loss of intellect was caused by misfortune or by his own imprudence in the use of intoxicating drinks. The loss of intellect takes away the faculty of possessing that design which is an essential part of the offence of murder. So if any other condition of the man deprive him of the power of knowing what he does, he cannot commit any offence of which design is an essential. Referring to this decision, Clarke, J., in *Sanchez v. The People*, 22 N. Y. Reports, 158, et seq., extends the doctrine still further. He says: "Like intoxication, jealousy is not of itself an excuse for murder; but can there be any reason if it pervade the mind to such a degree as to unsettle the understanding and dethrone the will, that it should not, like intoxication, be proper evidence, tending to show that the person was not capable of forming the premeditated design which is an essential element in the crime of murder?" Till better informed, I had supposed that these dicta of Judges Mitchell and Clarke settled the law;* but my friend, Judge Hoffman, tells me that they are only individual opinions, and very certainly not the law. Hon. A. S. Johnson, then a member of the Court of Appeals, confirms the views of Judge Hoffman, he refers me to *The People v. Rogers*, (18 N. Y. Reports, 9,) for a reliable statement of the doctrine of the law in this State relative to intoxication.—C. R. G.]

The case of *Rex v. Carrol*, (7 Carrington and Payne, p. 145,) shows that there is no change in this point in the law of England.

* Collinson on Lunacy, vol. i. p. 71. Dr. Drake, some time since, made a suggestion, which, if acted upon, would doubtless subserve the ends of justice and morality. A habitually intemperate man is enfeebled in his mental powers. When summoned as a witness, should his testimony have full weight? Without questioning his *competency*, should not his *capability* be called in question? (*Western Journal of Medical and Physical Sciences*, vol. i. p. 81.)

* If a layman needed any apology for this error, it would be found in Judge Clarke making the same mistake as to the dicta of Judge Mitchell, which he quotes in *The People against Sanchez*, as *the law*.

lor for the exercise of his power and jurisdiction. And in certain cases, when the person considers himself aggrieved, it may be investigated by six freeholders, whether he is actually what he is described to be, and their declaration is *prima facie* evidence of the fact.* The chancellor also in a recent case decided that the court has the custody and control of the *person* as well as the estate of a habitual drunkard, and can exercise that control by means of a committee, as in the case of a lunatic.†

The Scotch law is thus explained by Mr. Alison. Drunkenness is no excuse for crimes: "But, on the other hand, if either the insanity has supervened from drinking, without the panel's having been aware that such an indulgence in his case leads to such a consequence; or, if it has arisen from the combination of drinking with a half crazy or infirm state of mind, or a previous wound or illness which rendered spirits fatal to his intellect, to a degree unusual to other men, or which could not have been anticipated, it seems inhuman to visit him with the extreme punishment which was suitable in the other case. In such a case, the proper course is to convict; but in consideration of the degree of infirmity proved, recommend to the royal mercy."‡

We have, until now, been only noticing the actual state of intoxication, and the disabilities consequent thereon. It is to be recollected that long-continued habits are apt to produce actual insanity, and that drunkenness is in fact one of its common causes. The conduct of individuals of this description

* Act, passed March 16, 1821. (Revised Statutes, vol. ii. p. 52.) A similar law was passed in Pennsylvania, in February, 1819. (See *Commonwealth v. Coxe*, in *Ashmead's Pennsylvania Reports*, vol. i. p. 71.) And also in New Hampshire, in 1822. (*Digest of the Laws of New Hampshire*, 1830, p. 340.)

† 5 Paige's Chancery Reports, p. 120. In the matter of *Ann Lynch*.

‡ Principles of the Criminal Law of Scotland, p. 654. "By the Roman law, a notorious spendthrift was put under guardianship; and by the law of Scotland, a man who from drunkenness, facility of temper, or any other cause, is liable to be stripped of his property by the necessitous or designing, has the power of putting *himself* under trustees, without whose sanction no act of his can be valid. This is technically termed *inhibiting one's self*." (DUNLOP.)

should therefore be particularly noticed during the intervals of temperance, if any such exist. If spirituous liquors exercise such an influence as to render us doubtful concerning the state of mind at this time, we may reasonably infer that the alienation is becoming permanent.

There is, however, in addition to all this, a well-marked and distinct disease induced from the intemperate use of spirituous liquors, or certain other diffusible stimuli, but which has only attracted attention within the present century. It is styled *delirium tremens*, or *mania a potu*, and has some peculiar and striking characters. Among these I may enumerate tremors of the hands, a weak and compressible pulse, profuse, cold, and clammy sweating, and long-continued sleeplessness. The mind is incessantly agitated on some one or other subject, often fanciful, and as the hallucination increases, apparitions, or unreal animals, are often seen by the sufferer, or persons are supposed to be present, or are heard in adjoining rooms, who are actually absent.

Timidity and suspicion are common occurrences; but malignity is seldom manifested. Though any attempt at restraint is violently resisted, yet when once overcome, there is but little ill nature shown, and the patient, if properly managed, soon becomes tractable.* There are, however, exceptions; and it is precisely these exceptions which render the subject worthy of consideration in legal medicine. Dr. Carter (and the experience of other physicians corroborates the assertion) states that a medical friend of his nearly lost his life by the violence of a person laboring under *delirium tremens*.†

One circumstance connected with the history of this disease I have omitted until now, for the purpose of placing it singly before the reader, and thus pointing out a most important diagnostic. It is, that although the habitual and excessive indulgence in strong liquors or other diffusible stimuli is the

* In the above sketch, I have only stated the leading features of the disease. For more extended information, I refer to the writings of Armstrong, Sutton, Carter, Coates, Cross, Ware, etc.

† Cyclopaedia of Practical Medicine, art. *Delirium Tremens*. [I once ran most imminent risk in this way.—C. R. G.]

predisposing cause, yet the privation of them is often the exciting one. Individuals are seldom seized until after several hours, or sometimes days of abstinence. Insanity or delirium, on the other hand, may follow immediately in the train of a debauch.*

The first case which particularly attracted attention in this country was brought before the medical public by Dr. Daniel Drake, of Cincinnati, Ohio.

John Birdsall, of the village of Harrison, in that State, was indicted, in 1829, for the murder of his wife with an axe, by dividing the spinal column in the neck.

He was about fifty years old, and had been married to this, his second wife, nineteen or twenty years, and had children by her. For some years previous, he had been subject to occasional fits of intoxication. These of late were followed by delirium tremens, which generally lasted several days, and went off spontaneously. In these paroxysms, all its physical and moral symptoms were present. He entertained great fears of his safety, and sometimes ran about the village as if attempting to escape from pursuit. At another time, he concealed himself between the feather and straw bed in his own house. He would point his gun from his window, as if for defence against imaginary persons. He was also very watchful. The prevailing maniacal delusion was, that his wife was in combination with his neighbors—one, his son by his first wife—against his life. He had charged her, during his paroxysms, with criminal intimacy with these, and had threatened to kill her.

On Sunday he was intoxicated; Monday, Tuesday, and Wednesday presented nothing special. On Wednesday evening he complained of being unwell, but seemed to be rational.

* The importance of the above distinction is fully discussed in a communication of the diagnosis of delirium tremens, by Samuel Jackson, M.D., late of Northumberland. (*American Journal Medical Sciences*, vol. xxiii. p. 29.) He considers the latter to be a pyrexia, and the other a neurosis. Dr. N. R. Smith also recognizes the two forms, although he is more disposed to consider them as varieties of the same disease. (*Transylvania Journal of Medicine*, vol. xii. p. 42.)

He slept none that night, and next day the family thought him crazy, but were not alarmed. In the course of it, he took an axe and went to a neighbor, whom he desired to return with him, as he stated they wanted to kill him. He spent the day at home, apparently in terror and agitation; manifested jealousy of his wife; barred the doors; and fancied that the persons of whom he was jealous were manufacturing ropes up stairs to hang him.

In the course of the afternoon he suddenly committed the murder. His wife was sitting by the fire, and he had been walking the room. After the fatal blow on the neck, he followed it with two or three on the face. His eldest daughter seized the axe, which he yielded, and took a scythe and attempted to strike her. She defended herself until the door was opened. When arrested, he acknowledged the homicide, and knew, he said, that he would be hung, but ought to have done it sooner. He talked at this time so rationally that many of the witnesses could not believe him deranged. He evinced no dread of punishment, but was still in great apprehension of those who, he had believed, intended to kill him. After being committed, he became regular, and expressed sorrow for what he had done.

On the trial, three medical witnesses agreed that he labored under *mania a potu* when he committed the homicide. For the defence, it was urged that when drunkenness gives rise to insanity, it should cause immunity, and hence form a legal excuse. On the other hand, the counsel for the people remarked that Birdsall knew that this delirium followed his intoxication, and hence it was voluntary. The law, therefore, held him accountable for actions during such a state. The verdict was murder in the first degree, and he was sentenced to death.

The case excited the interest of Dr. Drake; and in a very able paper he clearly showed that insanity was present in this individual. Some of his observations I shall here condense.

He remarks that the paroxysms of delirium tremens are never permanent, but always transient, or for two or three days only, and seldom extending beyond a fortnight. That

in this state there is actual delusion, as much so as in common insanity. That of Birdsall was jealousy and apprehension of his wife. The court and jury seemed to hold that he was not deranged in the degree that destroyed his perception of right or wrong, in reference to the murder; and that even if he had been, still he could not have been acquitted, because his alienation originated in intemperance. Dr. Drake, on the other hand, justly supposes that he was not capable of judging between right and wrong, or at least of controlling his actions, on the subject of his hallucination. In all his maniacal attacks he entertained jealousy of his wife, and the idea that she was in a conspiracy against him. Here were *assumed and unreal premises; deductions true to the principles of logic, but false in point of fact; and lastly, acts consistent with his conclusions*—constituting, in fact, the very essence of insanity. Had he killed, in a real dispute, any one not in the conspiracy, it would have been foreign to his hallucination, and should not have been excused.

As to the remaining part of the opinion of the court, viz., that the prisoner was aware that *mania a potu* followed his intoxication, and, therefore, he could not be excused from his voluntary state of insanity, Dr. Drake remarks that the disease sometimes arises from opium, and even from liquors not taken to intoxication. In the eye of the law, even drinking to excess is not criminal; nor did the prisoner take liquor with malice prepense.

From these considerations, Dr. Drake is disposed to doubt the justice of the sentence of McDonough, for the murder of his wife.*

* The following case I mentioned in the former edition as follows: "William McDonough was indicted and tried for the murder of his wife, before the supreme court of the State of Massachusetts, in November, 1817. It appeared in testimony, that several years previous he had received a severe injury of the head; and that, although relieved of this, yet its effects were such as occasionally to render him insane. At these periods, he complained greatly of his head. The use of spirituous liquors immediately induced a return of the paroxysm; and in one of them, thus induced, he murdered his wife. He was, with great propriety, found guilty. The *volun-*

In consequence of a petition from many of the inhabitants of the State, who became convinced of his insanity, the punishment of Birdsall was commuted by the governor to that of imprisonment. During the period that elapsed between his sentence and this commutation, he again became insane in prison. Although on the trial he had confessed the murder of his wife, and urged that he had been insane when committing it, yet now he denied it positively, and said she was alive. He told Dr. Drake that she had not only spoken to him through the walls of the jail, but had actually visited his apartment several times. On the day previous to his appointed execution, while he knew nothing of the change of punishment, he was urged to sign a petition for pardon to the governor, in which there was an admission that he had killed his wife, but that he must have been insane when he did it. He refused it obstinately, and with violence; although he wished to live, he would not consent to introduce this.

Birdsall did not use tobacco, yet during this period he spat profusely. His pulse, when excited, was from 86 to 94 beats in a minute. Dr. Drake supposes, with great probability, that the low diet, darkness, and solitude of his prison may have reproduced and fixed the state of insanity, and which was continued for nearly a year after the latest period that I have seen a notice of him.*

Another case, earlier in date, but published about the same time, was tried in Boston, in May, 1828.

Alexander Drew, commander of the whaling ship John Jay,

tary use of a stimulus which he was well aware would disorder his mind, fully placed him under the purview of the law."

After reviewing this case, I am aware that I have probably expressed myself too strongly—in a *medical* point of view; and the reason of this is aptly suggested by Dr. Drake, when he asks whether if McDonough had killed his wife in one of his ordinary paroxysms, he would have been condemned? The case, however, is not one of delirium tremens, as the murder was committed during the fit of intoxication, and it thus rendered him obnoxious to the usual *legal* enactments.

Dr. Ray (*Med. Jurisp. of Insanity*, p. 447) does me injustice, in quoting a portion only of this paragraph.

* *Western Journal of the Medical and Physical Sciences*, vol. iii. pp. 44, 215, 598.

was indicted before the United States circuit court for the murder of his second mate, Clarke, while on the high seas. It appeared in evidence that he had sustained a fair character, and was much respected in the place where he resided. He was proved to be a man of humane and benevolent disposition, but that for several months he had been addicted to the use of ardent spirits ; and for weeks during the voyage had drunk to excess. In August, 1827, they spoke a vessel, from which Capt. Drew obtained a keg of liquor. He drank until he became stupefied ; but when he recovered, he ordered the keg and its contents to be thrown overboard. There was now no more liquor on board of the ship.

In two or three days Capt. Drew manifested signs of derangement. He could not sleep ; had no appetite ; thought the crew had conspired to kill him ; was unwilling to be alone ; expressed great fears of an Indian who belonged to the ship ; called him by name when he was not present ; begged he would not kill him, saying to himself he would not drink any more rum. He would sing obscene songs, and then hymns, and alternately pray and swear. He made an attempt to throw himself overboard, but was prevented. The next morning, he, with Clarke and the first mate, were at breakfast, when he suddenly withdrew from the table, and appeared to conceal something under his jacket, which lay in another part of the cabin. He immediately turned to Mr. Clarke, and requested him to go on deck. "When I have done my breakfast, sir," was the answer. Drew said, "Go upon deck or I will help you ;" and instantly took up the knife, which had been covered by his jacket, and stabbed Clarke in the right side of the breast. As one of the witnesses was passing out of the cabin, Drew snapped a pistol at him, but it missed fire. He was secured and bound, but remained for some weeks in this state. When he recovered, and was told of the murder, he replied that he knew nothing of it—all that he was conscious of was, that when he awoke, he found himself handcuffed. It did not appear that there had been any quarrel between Drew and Clarke for months previous.

Judge Story arrested the cause at this stage. "We are of
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opinion," he said, "that the indictment, upon these admitted facts, cannot be maintained. The prisoner was unquestionably insane at the time of committing the offence. And the question made at the bar is, whether insanity, whose remote cause is habitual drunkenness, is or is not an excuse in a court of law for a homicide committed by the party while so insane, but not at the time intoxicated, or under the influence of liquor. We are clearly of opinion that insanity is a competent excuse in such a case. In general, insanity is an excuse for the commission of any crime, because the party has not the possession of that reason which includes responsibility. An exception is when the crime is committed by a party while in a fit of intoxication, the law not permitting a man to avail himself of the excuse of his own gross vice and misconduct to shelter himself from the legal consequences of such crime. But the crime must take place and be the *immediate* result of the fit of intoxication, and *while it lasts*, and not, as in this case, a remote consequence, superinduced by the antecedent exhaustion of the party, arising from gross and habitual drunkenness. However criminal in a moral point of view such an indulgence is, and however justly a party may be responsible for his acts arising from it, to Almighty God, human tribunals are generally restricted from punishing them, since they are not the acts of a reasonable being. Many species of insanity arise remotely from what, in a moral view, is a criminal neglect or fault of the party, as from religious melancholy, undue exposure, extravagant pride, ambition, etc. Yet such insanity has always been deemed a sufficient excuse for any crime done under its influence."*

That this subject has not escaped the observation of European writers, is evident from the following observations of Orfila:—

"Drunkenness sometimes causes a short access of delirium or mania, to which the name of *delirium tremens* is given. This state may continue some days or even weeks. It differs

* Mason's Reports, vol. v. p. 28. United States v. Drew. American Jurist, vol. iii. p. 4.

from drunkenness, in that the latter disappears in twelve or fifteen hours at most, if not renewed by drink. Certainly the individual seized with this delirium is not responsible for his actions, and if he is to be punished for the immorality of the cause of his reprehensible act, a large number of the insane must also be included in a similar infliction.”*

I am reminded, however, by a communication from my friend, the Hon. David Buel, Jr., of Troy, that this plea may be, and indeed has been, carried further than the nature of the disease will warrant. It is as important to guard against this as it is to present the defence which the actual disease permits.

The following are the circumstances of the case now referred to:—

“Thomas Hardy, the prisoner, was addicted to drinking spirituous liquors. He resided in Albany during the winter of 1832 and 1833; and while there, had several paroxysms of delirium tremens, which were of short duration. In the spring he removed to Troy. On the 31st of August he murdered his wife by a blow with an axe. He had for three weeks previous to this period exhibited no marks of insanity. Some ten days previous to the homicide he had ill treated his wife, and for a few days she refused to live with him, but at length returned home.

“After the deed was done, his actions and conversation induced some persons to think he was insane. But the most intelligent individuals who conversed with him did not consider him so. And there was no proof of insanity or delirium tremens, either on the morning on which he killed his wife or for several months before.”†

* Orfila's *Leçons*, second edition, vol. ii. p. 127. Henke would also seem to have advanced a similar opinion. “*Ænomania*, (amētia vinolenta,) from the abuse of brandy.” “*Et de la liqueur appelée Grog.*” *Bulletin des Sciences Med.*, vol. xiv. p. 184. The Boston Medical and Surgical Journal, vol. ii. p. 569, has a well argued paper in defence of the doctrine maintained in the text. A remark is made in it which cannot be questioned, and may render judicial proceedings more secure. It is, that delirium tremens is a disease that, from its striking peculiarities, cannot be feigned.

† In a former edition, (vol. i. p. 370,) I made the following remark: “It

Old age. The following, according to Dr. Prichard, are among the striking features which attend the dementia of old age: Recent impressions and events are speedily and rapidly obliterated from the mind, while ideas long since stamped on it, remain in nearly their original force, and are capable of being recalled by association or attention. The individual may scarcely know where he is, yet he readily recognizes persons with whom he has been long acquainted. There is, therefore, an incapacity for attention and for receiving present impressions, but certainly nothing that deserves the name of a maniacal illusion. It is merely a loss of energy in some of the intellectual operations, while the affections remain natural and unperverted.* Such a state may, however, be followed by actual dementia, or approach to idiocy.

As to legal proceedings, it appears now to be decided that debility of mind, in consequence of old age, may render a person unfit to manage his own affairs, and his property may be placed in the hands of a committee, in the same manner as that of a lunatic.†

A case was decided on this principle in the chancery court of this State, some years since. An individual, eighty-five years old, was seised of a large real estate, and it was alleged, from repeated acts, that his imbecility of mind (although not a lunatic) and his want of understanding were such as to render him incapable of managing his affairs. The chancellor awarded a commission, in the nature of a writ of lunacy, to inquire whether the facts were accordant to the above statement, and he also directed that the individual should be pres-

is to be feared that cases may sometimes occur in which the dividing line between sanity and insanity may be overleaped, in the ardor to punish a foul homicide." The remarks of Mr. Buel on this are so just, and indeed so conformable to my subsequent experience, that I cannot avoid quoting them. "In my experience, juries in this country, in capital cases, are not apt to convict under the influence of excitement produced by the atrocious nature of the crime. On the contrary, I think there is rather an increasing readiness to find a place to hang a doubt on—and doubts, you know, insure acquittal."

* Prichard, art. *Insanity*, in *Cyclopedia of Practical Medicine*, vol. ii. p. 872.

† Collinson on *Lunacy*, vol. i. p. 66.

ent, so that the jury might have the inspection of him. The inquisition was taken and returned, finding that J. B. was, and for one year preceding had been, of unsound mind, and mentally incapable of managing his affairs. A committee of the estate was accordingly appointed.*

Dr. Conolly, in noticing this subject, mentions a frequent source of error. It is, that persons are often appointed to make the inquiry on the supposed state of mind, who are unacquainted with the individual, and the result is a restraint and watchfulness on the part of the aged, which naturally induces an appearance of perfect correctness of deportment. A slight suspicion excited by sordid domestics, or other interested persons, may prevent an exhibition of the actual enfeebled state of mind, and more decidedly give them up to the plots by which property is so frequently alienated from the legal heirs. These circumstances should therefore be remembered in all commissions, and a free and unrestrained intercourse be deemed a most essential means in forming a proper opinion.† But, on the other hand, no language is too strong to characterize their conduct who shall endeavor to make the imbecility of age an excuse for robbing its subjects of their comforts, or for confining them in an asylum.

It is impossible to extend this investigation into the numerous cases which may present doubts as to the strength of mind of individuals. Every instance must be judged on its own merits; and while weakness of understanding deserves protection, it should be remembered that too nice an investigation of eccentricities and imperfections may lead to oppression and injustice.‡

* Johnson's Chancery Reports, vol. ii. p. 232. In the matter of James Barker. See also Vesey's Reports, vol. xii. p. 446, *ex parte* Cranmer. But the greatness of a testator's age is not alone a proof of his incapacity to make a will, for a man of one hundred years of age may yet be very competent. (Call's Virginia Reports, vol. iv. p. 423. Also, *Darling v. Bennet*, Massachusetts Reports, vol. viii. p. 129; Johnson's Chancery Reports, vol. v. p. 158. *Van Alst v. Hunter*.)

† Conolly on Insanity, p. 440.

‡ In the case of Lord Donegal, it was found that he was of weak understanding, although he gave rational answers about his estate, but *not to any*

V. *Of the state of mind necessary to constitute a valid will.*

Sir William Blackstone, in his introductory remarks on the study of the law, observes that were the medical profession to inform themselves on the doctrine of last wills and testaments, or at least so far as relates to the formal part of their execution, they might often use this knowledge with advantage, to families, upon sudden emergencies.* Having such authority, it will not, I trust, be deemed presumptuous, if I preface the consideration of the present subject with a brief sketch of the legal requisites for making wills. This must also be my apology for noticing some points in this section, which might, with perhaps greater propriety, have been considered in previous ones.

It must be observed, in the first place, that the law makes an important distinction between the disposition of real and of personal property. This is borrowed from the English law.

Nuncupative wills. By this term is understood a verbal disposition of a person's property. The law concerning these has of late years been materially altered in this State.

By the Revised Statutes the power of making these wills is nearly taken away. The following is the existing law: "No nuncupative or unwritten will, bequeathing personal estate, shall be valid, unless made by a soldier while in actual military service, or by a mariner while at sea."†

So also, in England, by a recent enactment, (1 Victoria, chap. xxvi., July 3, 1837,) there can be no longer parol or

questions about figures, as to which he could not answer the most common. Lord Hardwicke did not think that a sufficient foundation to grant a commission, and said that if he granted any, it must be that of idiocy. (Vesey Senior's Reports, vol. ii. p. 407.) On this, Lord Eldon remarked that he does not know what his predecessors intended, in intimating that the incapacity, proved by the want of power to comprehend the most simple proposition in figures, as that two and two make four, is not evidence of an *unsound mind*. He considers that this deficiency is an evidence of it, though to be estimated with reference to age, situation, and all other circumstances. (Sherwood v. Sanderson, Vesey's Reports, vol. xix. p. 285.)

* Blackstone's Commentaries, vol. i. p. 13.

† Revised Statutes, vol. ii. p. 60.

nuncupative wills, except in the cases of soldiers and seamen.*

Secondly, a will or bequest of personal property. The handwriting of the person bequeathing was formerly sufficient to pass property so given, but witnesses are now required, as with testaments.

Lastly. Testaments, by virtue of which real property is devised, must be in writing, and signed by the party making the same, or by some other person, whom he expressly directs to sign it for him, and they must be attested and subscribed by two witnesses at least. This provision applies equally to wills of real or personal property; and the witnesses are further required to add their place of residence.†

We may now add that none of these are valid in law, if made by an infant, idiot, or person of insane memory. Here is the point at which the subject enters into legal medicine, and under this law, it happens that the testimony of a physician is often required.

In law, a person is considered an infant until he arrives at the age of twenty-one, and the construction of this is, that if he is born on the first day of January, he is of age to do any legal act on the morning of the last day of December.‡ In-

* Companion to the British Almanac, 1838, p. 138. In Pennsylvania, where the old English law is in force, the question as to what constitutes a valid nuncupative will, lately came up under the following circumstances: The testatrix, Priscilla Yarnall, had been afflicted with pulmonary consumption for six months before her death. She seems to have been conscious of the danger of her situation, but it is not very clear that she had abandoned all hopes of recovery. Nine days before her death, she made the alleged nuncupative will. She retained all her faculties to the last, although weak in body.

The court, among other objections, decided against the validity of the will, because such a will is not good unless made when the testatrix is *in extremis*, or is overtaken by sudden and violent illness, and has not time or opportunity to make a written will. (Rawle's Pennsylvania Reports, vol. iv. p. 46.)

† Revised Statutes, vol. ii. p. 63. The revisers of the laws of Pennsylvania have proposed a similar enactment in that State, viz., that all wills shall be in writing and signed as above, except *in extremis*. (American Quarterly Review, vol. xiii. p. 44.)

‡ As in the following case, which was decided by the House of Lords, in

fants, according to the ecclesiastical or civil law, if above the age of fourteen, may, however, bequeath personal property, but no real estate. This respects males, as females may make a will of personal estate at twelve.

In this State, every male of the age of eighteen and upwards, and every female, not being a married woman, of sixteen years and upwards, may give and bequeath personal property, by will, in writing.*

"Madmen, or otherwise *non-compotes*, idiots, or natural fools, persons grown childish by reason of old age or distemper, such as have their senses besotted by drunkenness—all these are incapable, by reason of mental disability, to make any will, so long as such disability lasts."†

Among the diseases which incapacitate an individual from making a valid will, or at least render his rationality doubtful, may be enumerated the following: lethargic and comatose affections, or from external injury. These suspend the action of the intellectual faculties; so also does an attack of apoplexy, and even, if patients recover from its first effects, an imbecility of mind is often left, which unfits an individual for the duty in question. Phrenitis, delirium tremens, and those inflammations which are accompanied with delirium, also impair the mind. Finally, in typhoid fevers, the low state which usually precedes death is one that may be considered as incapacitating the individual.

On the other hand, there are many fatal diseases in which the patient preserves his mind to the last, and all dispositions

February, 1775, on an appeal from the court of chancery. An estate was bequeathed to Thomas Sansam, as soon as he should arrive at the age of twenty-one. Now he was born between the hours of five and six on the morning of the 16th of August, 1725, and died about eleven, in the forenoon of the 15th of August, 1746, being killed by a fall from a wagon. The question was, whether he had arrived at the full age. The chancellor (Lord Camden) had so decided. It was urged that more than sixteen hours were wanting to complete the term; but that plea was overruled by their lordships, and the decree affirmed, because he was living on the day that completed the period. (Dodsley's Annual Register, 1775; Petersdorff's Abridgment, vol. x. p. 536.)

* Revised Statutes, vol. ii. p. 63.

† Blackstone, vol. ii. p. 497.

of property made by him are of course valid. Of these, none is more striking than the clearness of intellect which sometimes attends the last stages of phthisis pulmonalis.

The symptoms, the state of the individual, his conversation and actions, should all be canvassed, and from them an opinion must be formed.*

This, however, is only a general enumeration; and I have thought that a sketch of some of the cases scattered through law books and medical journals may prove of service at least to the medical profession. They are contained in works not generally accessible to physicians, and a perusal of them may prevent many of those difficulties which are so apt to embarrass medical witnesses. I have arranged them under the respective diseases that were the subject of inquiry.†

Apoplexy. In *Cook v. Goude and Bennet*, the testator had made a will after an attack of apoplexy, from which he recovered. He subsequently attended to business of every description, and traveled to various places. Death followed in three years after the first attack, from a second apoplectic fit. The testimony varied, and it was asserted by some that he had been frequently dull and lethargic; but Sir John Nicholl decided in favor of the will, because (along with the other circumstances) incapacity was not proved.‡

In *Waters v. Howlett*, Sir John Nicholl remarked that the allegation pleaded an attack of apoplexy in June, 1826; that the will was executed in November, 1826; and that there was a subsequent attack of the disease in 1828, with consequent

* Foderé, vol. i. p. 261.

† There is additional advantage from studying these cases, and applying them, which is well put in the *British and Foreign Med. Review*, vol. x. p. 131: "The decisions in the ecclesiastical courts are far more consonant with our present knowledge of the present forms of insanity, and they are not restricted to the antiquated or incorrect divisions of the common and chancery law."

Having been one of the earliest to collect these cases and present them to the medical public, it is extremely interesting to observe how familiar subsequent writers have become with them. I have added several in this edition for their general benefit.

‡ Haggard's *Ecclesiastical Reports*, vol. i. p. 577.

imbecility. He adds, that "the fifth and the remaining articles heap together a number of circumstances which usually, or at least frequently, occur in persons who are subject to apoplectic or paralytic attacks, especially about the period of those attacks, but which also generally subside after a time, and then the patient again is rational and capable. In support of such circumstances," he observes, "*persons who accidentally visit the deceased are usually brought to depose; but their evidence almost universally turns out to be of no weight against acts of capacity at other times, particularly if there is no appearance of fraud in the testamentary act itself.*"*

An individual was suddenly seized with a fit of apoplexy, while walking in his garden. It deprived him of his speech, which, indeed, he never regained, and affected his senses. Three weeks after he executed the disputed will. Although speechless, he appeared sensible; his hand was guided to make a mark. A witness deposed to his apparent understanding, and stated that when going away he desired the deceased to give him his hand, which he immediately did. The medical witness, however, deposed that he had never seen him, after the fit, when he appeared to have any sense, though there might have been intervals, when he was not present. Other witnesses corroborated this. Sir George Lee decided against the will, thinking him not sufficiently capable of making and executing it.†

Dr. Hastings was required professionally to visit, on the 6th of June, 1826, a rich farmer in the County of Hereford, England, and found him in a very lethargic state. It appears that although formerly sober, yet of late years he had become a confirmed drunkard. His speech was much impaired, and he was not always able to articulate so as to express the idea in his mind. He complained of noises in his ears, and imperfect vision. His gait was unsteady, and there was a constant trembling of his hands. He, however, answered all the questions put to him with propriety, and did not exhibit any imbe-

* Haggard's Ecclesiastical Reports, vol. iii. p. 790.

† Lee's Ecclesiastical Reports, vol. ii. p. 229. Bittleston, by her guardian v. Clark.

cility of mind. He performed a somewhat difficult sum in addition with accuracy. He told Dr. Hastings the collect for the day, it being Sunday, and read part of it to him. He wrote down, in words, the distance of his dwelling from the adjoining town.

The bodily symptoms evidently threatened an attack of apoplexy, and such, indeed, was the result. After many fruitless attempts to break up the habit of intoxication, he sunk into a state of mental imbecility, and died of apoplexy, in January, 1827. Dr. Hastings never saw him after the first visit, until the day before his death.

The testator had made a will, on the 26th of April, 1826, and its validity was contested. It seems that some time in 1825 he had been seized with symptoms of palsy, but which, by proper remedies, had been considerably relieved. He, however, was subject to fits of delirium tremens; and during these, acted strangely and incoherently. Generally speaking, from the testimony, the state of his mind at the time of making the will was similar to that observed by Dr. Hastings. The jury, under the direction of Baron Vaughan, decided in favor of the will.*

Palsy. In the case of *Clark v. Fisher*, brought before the chancellor of the State of New York, on an appeal from a surrogate's decision, the testator died in May, 1827, aged about eighty years. Four years previous to his death he had an apoplectic fit, which terminated in paralysis, and this con-

* Midland Medical and Surgical Reporter, vol. i. p. 410. Dr. Hastings mentions two other cases, in which apoplectic symptoms, evidently resulting from long-continued and severe disease of the brain, were still unaccompanied with any material injury of the intellectual functions. In another, the individual, aged between fifty and sixty years, roused suddenly from his stertorous sleep, "called to his brothers to attend, as he would dictate his will. To the great astonishment of all present, he, in the clearest manner, dictated a very just will, leaving his property in trust for his children. He directly afterwards, without mentioning any other affairs, again relapsed into coma; from which, before his death, he again roused, and then gave some directions with respect to an annuity to a clerk, who had been a faithful servant to him." This, however, was a case in which the comatose symptoms supervened on an attack of erysipelas.

tinued until his death. He was confined to his bed during these four years, although able to ride out a few times, being helped into his carriage. His speech was much impaired, but he was able to make himself understood by those who were well acquainted with him. The contested will was made in May, 1827, a short time previous to his death.

The chancellor, (Walworth,) in his opinion, states that upwards of fifty witnesses were examined before the surrogate. As usual, great diversity of opinion existed among them. Aware of the tendency of prejudice, or feelings to bias their views, he reviews the evidence, and establishes, from incontestable proof, that the testator's mind, at the commencement of his disease, was such as totally to incapacitate him from making a will. After the first year he was but seldom visited by those who were formerly acquainted with him; and those who did so, vary in opinion; but in 1826, it would seem that his memory was good respecting long past events. This, however, is so common during the decrepitude of old age, that the chancellor remarks it can hardly be relied on as a proof of mental capacity. At the period of executing the will, he could not make himself understood by the person who drew it, even in reply to questions directly put to him. It was all done by the direction of a wife whom he married after his first attack. The will was canceled.*

The following is a Scotch case: Mr. Gardner had been for many years an active man of business, and of a vigorous mind. He was struck with palsy in 1814, by which his right side was disabled, and his speech considerably affected. He ceased to take any active charge of business, but various loans were made by him through the assistance of his wife and by the agency of his law agent. He occasionally became intoxicated, and was allowed to take two or three glasses of whisky daily.

* Paige's Chancery Reports, vol. i. p. 171. This case did not, however, end here. Under the name of *Clarke v. Sawyer*, it was continued in the vice-chancellor's court, (3 Sandford's Chancery Reports, 351,) and finally adjudicated, October, 1849, by an affirmance of the decree of the chancellor. (Comstock's Reports of the Court of Appeals, vol. ii. p. 498.) See also on this subject, *Scribner v. Crane*. (2 Paige, 147.)

His general health was good, but he sometimes cried and laughed without any apparent cause, which some of the witnesses imputed to imbecility, while others stated that it was a nervous, or hysterical affection. He occupied his time in reading, and although it was difficult to communicate with him, yet those witnesses who did come into communication with his mind, deposed that it was quite sound and acute, and that his memory, both of old and recent occurrences, was particularly vivid and correct. His mode of communicating was by writing on a slate or piece of paper, (he having taught himself to write with his left hand,) and he also made use of an alphabet, pointing out the letters of the words he meant to express, with a nod or with his finger. In 1823 he had a second shock, which affected his left arm to the elbow; his speech was also much impeded, and he could only say ay and no. He thenceforth ceased to go out of the house, but occupied his time in reading, and communicated as formerly. Almost all the pursuer's witnesses gave it as their opinion that he had not a mind capable of making such a settlement as the one in issue, but one of them (the gentleman who had acted as his law agent in regard to the loans) stated that although he did not think he was capable of originating such a deed, yet he thought he had mind sufficient to understand it, if read over to him. The witnesses for the defenders (who stated various facts as to his memory) gave it as their opinion that his mind was quite sound. It was proved that, at the time of execution, the deed was not read over, and no written instructions were put in evidence, but it was proved that the deed of 1827 had been read to, and approved of, by him, and that both under that deed and the one under dispute, the daughter and her children derived much more benefit than they could if it were set aside.

Lord Cringletie, in his charge to the jury, urged that it was in proof that the memory of the grantor was entire, and observed that it is the first of the intellectual faculties that decays. The weight of testimony of those who held the most

communication with him was also in favor of his ability. The jury found for the will.*

A testator, ten years before his death, and in perfect health, executed a will, and subsequently a codicil; and two and a half years before his death, after a paralytic stroke, producing at least great bodily infirmity, having executed a second codicil, materially departing from those instruments; and six months before his death a third codicil, revoking the second, and reverting to the former disposition,—a probate of the will, and of the first and third codicils, was granted, there being no satisfactory proof of a change in his affections, and the evidence of volition and capacity being at least as strong in support of the third as of the second codicil.†

In a case before Sir George Lee (1752) the testator having the palsy, and being dissatisfied with a former will, ordered a new one to be executed. The attorney drew it according to her directions, read it to her, and she approved by answering “yes,” or “it is very right.” She raised herself up to execute it, but the palsy in her hand was so great that she could not hold the pen. Judgment was given in favor of the unexecuted will.‡

Esquirol was consulted on the following case: A bon vivant, of apoplectic make, was, at the age of sixty-four, attacked with hemiplegia and its usual symptoms. He became morose and sluggish, and suffered under trembling of the limbs, deafness, difficulty of speech, etc. Could a person, under these circumstances, dictate and understand a will written for

* Cases in the Court of Session, (Scotland,) vol. xi. p. 1849. *Simpson v. Gardner's Trustees*.

† *King and Thwaites v. Farley*, Haggard's Ecclesiastical Reports, vol. i. p. 502. See also *Marsh v. Tyrrel*, 2 Haggard's Ecclesiastical Reports, p. 84. Dr. Burrows was called in on the day of making the last will, for the purpose of ascertaining the capacity of the testator. She had had several paralytic strokes. Dr. Burrows would only give a limited opinion, and desired a second interview. The will was in direct opposition to two previous ones, made when in perfect health. Judgment against it.

The state of mind, after a paralytic stroke, is also discussed by Sir John Nicholl, in *Blewitt v. Blewitt*, 3 Haggard, p. 410.

‡ Lee's Ecclesiastical Reports, vol. i. p. 130. *Martin v. Wotton*.

him two months previous to death? It was replied, that although the above are signs of cerebral lesion, yet they do not necessarily suppose a loss of intellect. Reason may be present, although not so perfect. The number of witnesses required in France to attest a legal signature to a will is also urged as a proof that so many persons could not have been mistaken as to the state of mind.*

General weakness and debility. The will of a married woman, obtained when she was in an extremely weak state, nine days before death, by the active agency of her husband, the sole executor and universal legatee, and which will wholly departed from a former one deliberately made a few months before, was pronounced against, the evidence in favor not being satisfactory. She suffered much from pain and weakness, and took laudanum largely during her illness.†

In Scotland, there is a peculiar law to protect dying persons from importunity. No settlement or gift executed after the commencement of the disease of which the person dies, except those in the ordinary administration of the estate, are valid, and this, even if the grantor be not confined to his bed. If he survives sixty days after, or has been to market unsupported, it is good.‡

I will mention one or two decisions under this law:—

A person in advanced life had been afflicted with a stuffing and cough, and swelled leg, but it did not appear that these complaints existed within sixty days before, or were the cause of his death. It was proved that though not regularly confined to bed or to the house, his general health was infirm, and he died in the act of stepping out of his bed. He made his will thirty-eight days before his death. As there was no dis-

* Annales d'Hygiène, vol. vii. p. 203. Dugald Stewart, although struck with palsy in 1822, and unable to take general exercise, or to use his right hand, or to articulate distinctly, notwithstanding composed the third and fourth volumes of his work on the Philosophy of the Human Mind, between it and 1828, when he died. (Brewster's Edinburgh Journal of Science, vol. x. p. 201.)

† Haggard's Ecclesiastical Reports, vol. ii. p. 169. *Mynn v. Robinson.*

‡ Bell's Dictionary of the Law of Scotland, art. *Death-bed*. As to the last provision, see *Kyle v. Kyle*. Cases, Court of Session, vol. iii. p. 149.

tinct evidence that a fixed disease was present within sixty days, or that it was the cause of death, the decision was in favor of the deed.*

In another case, a person addicted to excessive drinking, who had been confined to bed for several weeks, from debility and exhaustion, having executed a settlement of her landed estate, and died in eight days thereafter, without having been once up, except to have her bed made—and a medical gentleman having deposed that she had no formed disease, when he saw her on the third day after the execution of the deed, and that she died of an access of peripneumonia notha, which is a very common, though not a necessary result of the state in which the party previously was, it was held that she was not to be considered on death-bed at the date of the execution of the deed.†

Imbecility.

Lispenard case.—Anthony Lispenard, Sr., died in 1806, leaving a large estate. In his will, dated December 24, 1802, he allows to his daughter Alice four hundred dollars per annum, she being, as he alleges, of such imbecility of mind as to be incapable of taking care of property. In 1818, Anthony Lispenard, Jr., died, unmarried and intestate, and Alice succeeded to one-fourth of his estate. In January, 1836, she died, leaving a will, dated August 27, 1834, giving all her estate to Alexander L. Stewart, her brother-in-law, with remainder to his daughter, if Stewart did not survive the testatrix. This will was contested, and the state of mind of Alice Lispenard became the subject of investigation. Voluminous testimony was taken before the surrogate, (Hon. James Campbell,) who refused probate of will. His opinion, given in full, (26 Wendell,) states the substance of the testimony, from

* Cases, Court of Session, vol. ii. p. 474. *Robertson v. McCaig*.

† *Ibid.*, vol. vi. p. 367. *McKay v. Davidson*. Additional cases on this law of *Death-bed*, as it is called, may be found in *ibid.*, vol. xii. p. 569. *Cogan v. Lyon*. See also Murray's Reports of Jury Court Cases in Scotland, 5 vols.

which it appears that all attempts to educate Alice signally failed. She could never be taught to read, still less to write. As she passed from youth to womanhood her defects became more obvious. She had her prejudices and attachments; was not insensible of neglect or attention; could remember persons whom she had not seen for a long time; could carry messages with accuracy, make and answer inquiries on familiar subjects. She was employed in the family in a daily round of drudgery, to which she was competent.

The case was appealed to the chancellor, who, after very careful examination of all the testimony, declares himself perfectly satisfied that Alice Lispenard was no more competent to make a will than the generality of children of eight years old, who had had equal care bestowed upon them. He affirmed the decision of the surrogate.

In the court of errors—being the State Senate—this decision was reversed, and the will sustained, by a vote of twelve to six. An elaborate opinion of Hon. Gulian C. Verplank is supposed to have very much influenced this decision. No judge of the supreme court gave any opinion on the case, and it was left for the so-called *lay members* to decide.

Mr. Verplank asserts that the right of testamentary bequest is not a mere institution of law, but a *natural* right, subject to the restrictions of civil legislation, but not its mere creature. The statutes of the State of New York except idiots and persons of unsound mind from the exercise of this right, but a line of unvarying authorities show that in legal intent the natural defect of mind alluded to does not consist in a limited degree of intelligence, but in an entire absence of it. The term *non compos mentis*, or of unsound mind, imports not weakness of understanding, but a total deprivation of reason. "A person being of a weak understanding, so he be not an idiot, nor a lunatic, is no objection in law to his disposing of his estate. Courts will not measure the extent of people's understandings or capacities. If a man be legally *compos mentis*, be he wise or unwise, *his will stands*."*

* Shelford on Lunacy.

True, the courts have, in many cases, made the bequests of the imbecile void, but not on a general and positive disability for all similar acts, but because of the relative character of the will itself and of all the external circumstances. The whole transaction—taken together with all the facts, of which the mental weakness was one—showed that *consent*, the very essence of the act, was wanting to that particular act.

Mr. Verplank thinks that the testimony that represents Alice as a dull imbecile, but not idiotic person, much outweighs that which asserts the lowest grade of intellect. To the clause in her father's will, he applies the dictum of Judge Washington: "The capacity may be perfect to dispose of property by will, yet inadequate for the management of other business, as making contracts."*

[The *Lispenard* case "has not been regarded with favor by the bench or the bar." *Davies, in Parrish will case*. In *Thompson v. Thompson*, 21 Barber, 116, Clarke, J., said, "the opinions of the learned Senators on this (*Lispenard*) case are not binding authority."

The Parrish Will Case.—The fact that in this case the doctrines of the *Lispenard* case, theretofore held as of binding authority, were repudiated and the case expressly overruled, render a somewhat detailed account of it proper in this place. Henry Parrish, a wealthy merchant of New York, married, but childless, fifty-four years of age and in good health, made, after much deliberation and consultation, September 20, 1842, his will, leaving to his wife \$331,000, about 45 per cent. of his estate; to various connections and friends, over \$360,000; the remainder to his two brothers, such remainder being about \$37,000. During the next seven years, this residue increased to nearly \$300,000 by lapse of legacies by the death of legatees, and by its accumulation. To this Mr. Parrish's attention was directed, and he appeared satisfied. July 19, 1849, Mr. Parrish had an apoplectic attack,

* For the details of this case, see the "*Lispenard Case, Stewart v. Nicholson*," in the New York State Library. Wendell's New York State Reports, vol. xxvi., and an analysis of the case and the testimony, in *American Journal Med. Sciences*, N. S., vol. vi. p. 507.

followed by paralysis of the right side. Subsequently he had frequent epileptic convulsions. August 29, 1849, Mr. Parrish (as the proponent alleges) executed a codicil to his will, giving his wife a large amount of real estate; this codicil was, at the suggestion of counsel, re-executed December 17, 1849. In September, 1853, another codicil was executed, making a further addition to his wife's share of his property, and revoking the appointment of his brother as executor. In June, 1854, a third codicil was executed, constituting his wife residuary legatee in lieu of his brothers. Mr. Parrish died March 2, 1856. The codicils No. 2 and 3 were contested on the ground that, after the apoplectic attack, July, 1849, Mr. Parrish possessed no testamentary capacity. To this question a vast amount of testimony from friends, attendants, and physicians was introduced, and upon it written opinions were given by Drs. Watson, Clark, Bell, McCready, Brown, Ranney, Earle, Ray, and Sir Henry Halford. From the mass of testimony, it appears that Mr. Parrish's general health improved during the year 1850, and that it continued good; he grew fat and presented the appearance of health. From this time to his death, his condition does not seem to have changed materially. He had perfect control of the left arm and leg, the right being useless. His power of articulation was mainly lost; he certainly never uttered more than a few very indistinct monosyllables, and several witnesses who saw him often, never heard him utter an intelligible word. His urinary and alvine evacuations were often involuntary. His sight had long been imperfect, his other senses were unimpaired. As he could not speak, attempts were made to enable him to communicate his ideas by means of a writing-slate, block letters, and a dictionary, but without success. The change of manners and character was very marked. Before his attack, Mr. Parrish was a man of much formal politeness, of mild, gentle, and singularly imperturbable manners, his character pure, honorable, and gentlemanly. His mental peculiarities were soundness, and, perhaps, slowness of judgment, and a firm adherence to opinions once formed.

After his attack, Mr. Parrish became changed in a marked manner; he often shed tears, was petulant, sometimes violent, and not unfrequently utterly regardless of decorum or even of decency. He was often rude and even violent to Mrs. Parrish, attempting to push or strike her. This change is thus commented on by Judge Davies: "How entire and complete the change; how diametrically opposite to the previous conduct of his whole life!" Of the elaborate written opinions given by medical men, those of Drs. Clark and McCready were in favor of the testator's mental soundness; the others, Ray, Bell, Brown, etc., against it. Of these conflicting opinions, I shall give no detail; one extract from that of the late Luther N. Bell is so important, that it is given in his own words: "As an expert in mental disorders, I am ready to stake any reputation I may have in saying that I regard the circumstances connected with Mr. Parrish's involuntary disregarded evacuations as pathognomonic of his condition; a man's eating his dinner with augmented rapidity and fumbling at the same time at the opening of his pantaloons when an involuntary fecal evacuation was about to occur, are precisely such as extremely demented persons constantly exhibit, and such as no others than such demented subjects ever would manifest."

In considering this state of facts, the Court (Davies, J.,) laid down the following principle of law:—

"It is essential that the testator has sufficient capacity to comprehend perfectly the condition of his property, his relations to the persons who were, or should, or might have been, the objects of his bounty, and the scope and bearing of the provisions of his will. He must, in the language of the cases, have sufficient active memory to collect in his mind, without prompting, the particulars or elements of the business to be transacted, and to hold them in his mind a sufficient length of time to perceive, at least, their obvious relations to each other, and be able to form some rational judgment in relation to them." Referring to the *Lispenard* case, he says: "This Court has not considered this rule as of obligatory force upon

it,* but has been disposed to give the language used in the statute its natural and obvious import and meaning." As to the case before them, the Court say: "We are clearly of the opinion that the attack of Mr. Parrish, on the 19th July, 1849, extinguished his intellectual powers, so obliterated and blotted out his mental faculties, that after that period he was not a man of sound mind and memory, within the meaning and language of the statutes, and was, therefore, incompetent to make a will, and that the codicils of September, 1853, and June, 1854, were not his will, and form no part thereof." They further add: "It would be in violation of long and well-established principles, to admit to probate testamentary papers prepared and executed under the circumstances these were, by a man who was in apparent full physical health, and possessing nearly his natural strength, who could not or would not write; who could not or would not speak; who could not or would not use the letters of the alphabet, or even a dictionary for the purpose of conveying his wishes, upon proof solely that they were supposed to express the testator's wishes from signs, gestures, and motions made by him, and especially when it appeared that such signs, gestures, and motions were often contradictory, uncertain, frequently misunderstood, and often not comprehended at all." In this opinion, Justices Denio, Wright, Allen, and Smith concurred. Gould, J., concurring in the judgment of the Court, but he considered the decision in the *Lispenard* case to be binding on the Court. Selden, C. J., concurred in overruling the case of *Lispenard*, considering that "no amount of authority can establish a rule which is self-contradictory." In this opinion, Sutherland, J., concurred.—C. R. G.]

Old age, implying mental imbecility. *Kinleside v. Harrison.* In this case, the testator, between eighty-six and eighty-eight years of age, made several codicils to his will, which were disputed on the ground of mental imbecility, the result

* In an action of ejectment, before Oakley, C. J., Superior Court, the jury, under the direction of the Court, found that this same Alice Lispenard was an idiot, and had no testamentary capacity. This verdict was after a very full investigation and the examination of a number of witnesses.

of old age. A large mass of contradictory evidence was presented. It appears to be admitted that there was occasional incapacity from violent nervous attacks, but he survived two years after making the codicils, and managed his own concerns. Thus he drew drafts, all of which were accurate and conformable to the variations required in them. His memory failed him occasionally, and he was deaf, yet he was able to play whist well until a few months before his death, and always paid his own bills and entered his payments as they were made, in his account book. Sir John Nicholl decided in favor of his capacity.*

In *Brydges v. King*, Mrs. Brydges had made a will while in a state of health, material parts of which were altered by a codicil executed ten days before her death. She was above seventy-two years of age, had been confined to her room three months, and to her bed two months. Her complaint was visceral, and from lying in bed she had become so excoriated that it was necessary to dress the sores from shoulder to hip; and although her bowels were so torpid as to require injections, yet, from her weakened state, she was not able to bear them. In this condition, the codicil in favor of her personal attendants was executed. The regular physician of the deceased had not seen her for several days previous and subsequent, but he deposed to her being more or less lethargic for months, and did not believe her capable of transacting important business. It was also in evidence, that her relatives and solicitor were excluded, under various pretences, from seeing her. The codicil was declared invalid by Sir John Nicholl.†

In *Ingram v. Wyatt*, Sir John Nicholl notices particularly the subject of imbecility of mind. This defect, he remarks, seems to proceed from want of quickness, activity, and motion in the intellectual faculties. And thus sometimes different faculties are found failing in different persons. "For example, the memory is sometimes perfect where higher powers of the

* 2 Phillimore, p. 449.

† Haggard's Ecclesiastical Reports, vol. i. p. 256.

understanding are greatly defective." In an individual of imbecile mind, "the understanding has made little progress with years; it has not matured and ripened in the usual manner; yet even in such individuals, unless the imbecility be extreme, some improvement will have taken place; some progress in knowledge beyond mere infancy will have been made. By the help of memory, by imitation, by habit, such an individual will acquire many ideas, will recollect facts, and circumstances, and places, and hackneyed quotations from books; will conduct himself orderly and mannerly; will make a few rational remarks on familiar and trite subjects; may retain self-dominion; may spend his own little income in providing for his wants, as a boy spends his pocket money, and yet may labor under great infirmity of mind, and be very liable to fraud and imposition."

"The principal marks and features of imbecility are the same which belong to childhood, of course (as already observed) varying in degree in different individuals; frivolous pursuits, fondness for and stress upon trifles, inertness of mind, paucity of ideas, shyness, timidity, submission to control, acquiescence under influence, and the like. Hence these infantine qualities have acquired for this species of deficiency of understanding the name of childishness. The effect is, that where imbecility exists at all, and in proportion to its degree, it becomes necessary, especially in a case exposed to other adverse 'presumptions,' to ascertain its extent with some accuracy, to see how far the individual was liable to be controlled by influence, to submit to ascendancy, to acquiesce, from inertness and confidence, in those acts upon the validity of which the court has to decide."*

In *Bird v. Bird*, the will was executed ten days before death, by a person of eighty-five, in weak bodily health, but the drawer and witnesses of it were confirmed in their opinion as to capacity, volition, and free agency by the adverse witnesses, and by the deceased's affections and declarations. Will pronounced for.†

* Haggard's Ecclesiastical Reports, vol. i. p. 384.

† Ibid.; vol. ii. p. 142.

A testatrix was old and greatly debilitated by the disease under which she labored when she made her will and codicil, and the usual state of her mind, until her death, was that of great torpor and inactivity. "But her mind (say the court) was evidently not deranged. It was, in fact, rather a want of sensibility than a want of intellect, which marked her condition; for most, if not all the witnesses, agreed that she could, by anything sufficiently interesting to attract her attention, be awakened and roused to activity; and when she was so, that she conversed intelligently, and invariably gave rational and pertinent responses to any interrogatories propounded to her." Some indeed thought that she could not be excited for a time sufficient to make a will; others entertained a different opinion. And it was proved that she felt an extreme interest about making a will. She was a widow and childless, and had long determined against intestacy. The primary motive of this determination was the emancipation of her slaves, and this, all agreed, was the object dearest to her heart. This was a subject, then, to excite her; and the subscribing witnesses were also decided as to her competency at the time of executing the will. The court, therefore, adjudged in favor of the will.*

It has been sometimes agitated, whether the loss of memory solely is such a proof of mental imbecility as to render a will invalid. On this point the remarks of Chancellor Kent, in a case before him, are decisive. "The failure of memory is not sufficient to create the incapacity, unless it be quite total, or extend to his immediate family. The Roman law," he remarks, "seemed to apply the incapacity only to an extreme failure of memory—as for a man to forget his own name, *fatuus præsumitur qui in proprio nomine errat*. The want of recollection of names is one of the earliest symptoms of a decay of the memory; but this failure may exist to a very great degree, and yet 'the solid power of the understanding' remain."†

* Littel's Kentucky Reports, vol. i. p. 252. *Watts v. Bullock*.

† Johnson's Chancery Reports, vol. v. p. 161. *Van Alst v. Hunter*. In *Turner v. Turner*, (Littel's Kentucky Reports, vol. i. p. 101,) the court make

Drunkenness. The testator was proved to have been not properly a madman, but a habitual drunkard, who, under the excitement of liquor, acted very like a maniac.

Sir John Nicholl held that, from the evidence, it appeared that the testator was not under the excitement of liquor, and, consequently, not insane at the time of making the will; and he therefore established the will.*

Delirium. In *Evans v. Knight*, where the condition of the testator was inquired into, eight years after his death, it was endeavored to be shown that he had been laboring under a delirium, caused by a fatal attack of peripneumonia. This attack had been on him for some days. He made the will on the 21st of April, and died on the 24th. The physician who was called in, and who saw him a short time, inclined to the opinion that he was not in sound mind, but denied that he was in a state of mental derangement; "and, in spite of a marked confusion of intellect, he could answer questions put to him sensibly and rationally." A friend visited him on the same day, and heard him give instructions to the solicitor, without any leading questions being put. The solicitor also was satisfied of his capacity. Verdict in favor of the will.†

Suicide, as indicative of insanity. "Instructions for a will containing the fixed and final intentions of the deceased are valid, if the formal execution is prevented by death; and if there is no evidence of insanity at the time of giving the instructions, the commission of suicide three days after will not invalidate the paper, by raising an inference of previous derangement." Here the testator conversed sensibly and collectedly, and appeared perfectly rational when giving the instructions.‡

a remark which is probably correct; and if so, deserves attention. "There is less presumption of insanity *at the time* when a will was executed, where the testator is shown to have been previously afflicted with the mental debility attending old age, than there is where the mental malady is ordinary lunacy."

* *Ayrey v. Hill*, 2 Addams, p. 206. See also *Dodge v. Meech*, (where the will was invalidated,) 1 Haggard's Ecclesiastical Reports, p. 612.

† 1 Addams, p. 229. See also *Lemann v. Bonsall*, *ibid.*, p. 388.

‡ *Burrows v. Burrows*, 1 Haggard's Ecclesiastical Reports, p. 109.

The existence of a lucid interval. The case of *White v. Driver* related to the validity of the will of Mrs. Manning, who was proved to have been insane for several years, but in varying degrees. She was at large during the greater part of her life, and under her own government. From the testimony of the clergyman, the solicitor, the two apothecaries, and the nurse, "with all their suspicions awakened, and their vigilant observations called forth," it appeared that she was sane and rational during the transaction; and indeed it seemed proved that she continued so until her death, which was on the next day. The disposition of her property, as made by the will, was "neither insane nor unnatural." Sir John Nicholl, therefore, pronounced it valid.*

In another case, (*Cartwright v. Cartwright*), Sir William Wynne enters more in detail into the circumstances which go to prove the existence of a lucid interval. "If it can be proved that it is a rational act rationally done, the whole case is proved. What can you do more to establish the act? Suppose you are able to show the party did that which appears to be a rational act, and it is his own entirely, nothing is left to presumption in order to prove a lucid interval." The deceased, by herself writing the will now before the court, had plainly shown that she had a full and complete capacity to understand the state of her affairs and her relations, and to give what was proper in the way she had done. She not only formed the plan, but pursued and carried it into execution with propriety and without assistance. He was, therefore, in favor of the validity of the will, and this sentence was affirmed on appeal to the high court of delegates.†

Monomania—Hatred against relatives. One of the most difficult questions for decision is where the charge of insanity

* 1 Phillimore's Ecclesiastical Reports, p. 84.

† 1 Phillimore, p. 90. But in *Groom and Evans v. Thomas*, where the deceased was proved to have been insane both before and after making the will, testimony showing calmness and the transaction of formal business, under the sanction of his family, was not deemed sufficient to rebut the presumption against the papers. It was, however, very doubtful whether the testator had a lucid interval. (Haggard's Ecclesiastical Reports, vol. ii. p. 433.)

rests on some obstinate and long-continued feelings of hatred or malice against individuals, which are evidently groundless.

Lord Erskine, in his celebrated speech for Hadfield, made the following remarks:—

“In the very recent instance of Mr. Greenwood, (which must be fresh in his lordship’s recollection,) the rule in civil cases was considered to be settled. That gentleman, while insane, took up an idea that a most affectionate brother had administered poison to him. Indeed, it was the prominent feature of his insanity. In a few months he recovered his senses. He returned to his profession as an advocate, was sound and eminent in his practice, and in all respects a most intelligent and useful member of society; but he could never dislodge from his mind the morbid delusion which disturbed it, and, under the pressure, no doubt, of diseased prepossessions, he disinherited his brother. The cause to avoid this will was tried here. We are not now upon the evidence, but upon the principle adopted as the law. The noble and learned judge who presides upon this trial, and who presided upon that, told the jury that if they believed Mr. Greenwood, when he made the will, to have been *insane*, the will could not be supported, whether it had disinherited his brother or not; that the act, no doubt, strongly confirmed the existence of the false idea, which, if believed by the jury to amount to *madness*, would equally have affected his testament, if the brother, instead of being disinherited, had been in his grave; and that, on the other hand, if the unfounded notion did not amount to *madness*, its influence could not vacate the devise.”

Strange as it may appear, this remarkable and *leading* case, so strongly urged, and so frequently quoted ever since, in cases where it applies, was never reported until 1844, although the trial itself was held before Lord Kenyon and a special jury, on the 13th of May, 1790. After more than fifty years, Dr. Curties, in an appendix to the third volume of his Ecclesiastical Reports, published the charge of Lord Kenyon, from the short-hand notes of Mr. Gumey.

It appears that, previous to this trial, William Greenwood, the disinherited brother, had brought an ejectment in the

court of common pleas, and obtained a verdict against the will. The defendant (a cousin) in that action was then in America, but, hearing of the verdict, immediately returned to England, and commenced the present action. Mr. Erskine was engaged in his favor, and Sergeant Adair for the brother.

The charge of Lord Kenyon is elaborate and minute, and contains a full analysis of the testimony.

After adverting to the caprice which is often shown in the disposition of property, but yet without any suspicion of the sound state of mind of the testators, he observes that there was a possible fallacy in the statement of the question by the learned sergeant.

"He stated that the question was, whether the disposition was the effect of madness or of sound mind. I am rather inclined to believe that some persons, in judging of it, would look first to the act done, and argue up from that to the sanity or insanity of the mind, instead of looking at that which is the real question, and which the law ever considers to be the question, namely, whether *the testator was of sound and disposing mind and understanding when he made his will?* This is *the* question which the wisdom of ages has framed, and which, as often as the question arises in courts of justice, in those words is put into form."

In favor of the sanity of the testator was adduced the testimony of a number of respectable and intelligent persons, who had known Mr. Greenwood from the time of leaving school and going to college, during his study of the profession of the law, and, subsequently, in family intercourse, and in business affairs. They all agree, that there was no appearance of derangement of mind, either in conduct or behavior. Several, however, remarked that the brothers, although they lived together, appeared to hold no communication with each other; there was no conversation between "them, when they sat together at dinner."

Dr. Reynolds, a physician, stated that in November, 1787, Mr. Greenwood consulted him on his illness, which was a consumptive case; there was no appearance of derangement of the intellect; he conversed as a sane man, and described his disorder with accuracy.

Mr. Greenwood's friends pressed him to go to Lisbon, for the recovery of his health. He replied that he could not, until he had settled his affairs. When his brother was suggested as an agent, he said, in a determined way, "he shall have nothing to do with my affairs." He appointed an agent, drew up instructions, marked with great accuracy and good sense, and, after this, departed for London. While there, on the seventh of December, he drew up and executed his will. The friend who gives this testimony, adds that he received a letter, dated Lisbon, January 10, giving a long, accurate, and sensible account. He also had observed other instances of marked dislike to his brother—such as if Mr. Greenwood wanted to be helped to a dish at table that stood near his brother, he had the dish removed to him, rather than ask his brother to help him.

The great majority of the witnesses, however, having met him in the ordinary intercourse of conversation and business, united in pronouncing Mr. Greenwood a man of sound mind and understanding, and perfectly competent to dispose of property.

The first witness called on the part of the defendant was Mr. Hingerston, the apothecary. He deposes that, on the day after his father's death, he was sent for to Mr. John Greenwood, who was extremely feverish; this continued for several days, and was finally accompanied with delirium. The patient was restless and suspicious, made complaints to him of his brother and servant, and hinted that there were plots against him. This was on the 25th of April; and that he attended him until the 23d of June; that he never was free from delirium, as long as he attended him. Coercion was thought necessary, and a keeper was employed from the Horton establishment, who remained ten weeks, and did not consider him in his right mind. He thought him not quite well when he left, though much better; noticed violent paroxysms of passion in consequence of the detection of an untruth.

Dr. Pitcairn was called, at the instance of Mr. Jones. Mr. Greenwood was ill, and unmanageable on the 26th of April.

"He thought no one could look at him without perceiving that he was in an insane state." Dr. Budd prescribed for him, and concurred in the belief of his insanity. He was very shy, particularly when his brother was present.

Mr. Livie, an old friend of the family, states that, on the death of the father, all were in great distress. Mr. Greenwood was ill the next day, and some days after he sent for his brother and witness; expressed his apprehension of immediate death, and said that, if this should happen, his whole property would go to his brother and sister. Mr. Livie soon thought that a keeper was necessary—but saw very little of him until Price was removed. He met him some time after, put out his hand, but Greenwood would not shake hands, and ever afterwards, when he passed, would not bow or speak to him.

The Rev. Mr. Jones was the tutor of Mr. Greenwood, at Trinity College, Cambridge. Mr. Greenwood having escaped out of the window, came to him on the 5th of May, 1786. He found him dressed in deep mourning, very pale, in great distress; said he had lost the best of fathers, that his friends had deserted him, the Higginsons; Livie and his brother, too, had deserted him, and had spread a villainous report of him, that he had been undutiful to his father, and been accessory to his father's death, and that they had confined him. He urged him to accompany him to London, which he did. He was low and melancholy, and Mr. Jones did not think he was in his right mind.

On the 20th of June Mr. Jones again saw him; he was still low and melancholy, but not so bad as before. He seemed to have a great dislike of his brother. In December, 1786, he appeared to have recovered his senses. The witness then talked with him about his brother. The deceased said he would convince him that his brother had not done right; and he called him a hound, a scoundrel, and a villain.

Mr. Jones saw Mr. Greenwood again on the 4th of June, when he noticed, for the first time, that the deceased had taken a dislike to himself; talked of friendship being only a name, and of being deserted; and at a subsequent interview,

in July, 1787, burst into a violent rage; accused him of calling in Dr. Budd, and of retaining Price. He left him, refusing to give his hand.

To another witness, a college acquaintance, he stated, in July, 1787, that his brother had been the author of the "force used to him. He also charged his brother with having accused him of not feeling for his father. He further said that they had given him brandy and water, in which they had put poison; and that they had put arsenic into his tea-kettle; that he asked the witness whether he would not have him prosecute his brother; that he would certainly prosecute his brother." This witness also proved his constant sullenness and unkindness to both brother and sister. He promised to alter this, but very shortly after returned to his former habit.

Other witnesses proved that this feeling was entertained even after his arrival at Lisbon.

Lord Kenyon concluded his charge as follows: "The inquiry, and the sole inquiry, in this cause is, whether he was of sound and disposing mind and memory at the time when he made his will. However deranged he might be before, if he had recovered his reason at the time, he was competent to make his will.

"And I take it, a mind and memory competent to dispose of his property, when it is a little explained, may stand thus: having that recollection about him that would enable him to look about the property he had to dispose of, and the persons to whom he wished to dispose of it. If he had a power of summoning up his mind so as to know what his property was, and who those persons were that then were the objects of his bounty, then he was competent to make his will.

"The conduct which he held to his brother was certainly considerably unaccountable. If, whenever his brother's name occurred, instantly a fit of delirium had seized him, then I should conceive that he was not competent to make his will; but if his mind remained entire; if he had new raised up prejudices against his brother, though upon improper grounds, yet if they were such prejudices as might reside in a sound mind, it is hard that those prejudices should lead to conclu-

sions unfavorable to his brother; but hard as the case may be, it is better that a thousand hard cases should take place than that we should remove the landmarks by which man's property is to be decided.

"It is for you to look at that conduct to his brother, to see whether it is evidence of a derangement of mind, or whether only an unreasonable prejudice which he indulged against his brother; if it be the last, that did not unfit him to make his last will and testament.

"A multitude of instances there have been, where men have taken up prejudices against their nearest and dearest relations; it is the history of every week in the year, and the history of almost every family at one time or other—that harsh dispositions have been made; that unreasonable prejudices have taken place; that one child, standing equally near in blood, has been preferred to another: and if once we get into digressions of that kind, then we get upon a sea without a rudder. Where will you stop? what partiality will be enough to set aside a will? and what partiality will you give way to, and say the will is good? These are questions which the most correct and acute mind that ever addressed itself to the consideration of questions will not be able to settle.

"You are to consider whether his mind was entire to make the disposition; not whether the disposition was whimsical, cruel—what none of you, retiring to your own bosoms, and collecting your own feelings, would have made; but to see whether it was the disposition of this man's mind, exercising the faculties of his mind, when in possession of those faculties.

"If you think that, whenever that topic occurred to him, it totally deranged his mind, and prevented him from judging of whom the objects of his bounty should be, according to his own will, then the will cannot stand, and then you will find for the defendant; but if you think he was of competent mind to make his will, to exercise his judgment, however that might be disturbed by passions which ought not to be encouraged, then the will ought to stand. It is for you to decide; and the care and attention you have paid have made it unnecessary for me to say so much as I have said, in addition to the evidence." Verdict for the plaintiff.

The reader will observe that an opposite verdict had been obtained for the defendant in the common pleas. In consequence of this a compromise took place.*

Another case of the same description is that of *Dew v. Clark*, which forms the subject of one of Sir John Nicholl's most elaborate and able opinions, and I cannot omit recommending its attentive perusal to all of my young legal friends who wish to understand this intricate species of insanity.

Ely Stott died a rich man, leaving a widow (the third wife) and an only child. This child, a daughter, (now Mrs. Dew,) was of the first marriage, and born in 1788, and it was shown that from her earliest infancy he had labored under the strongest aversion against her, declaring that she was invested by nature with a singular depravity, was the victim of vice and evil, etc., and he continued in this opinion and made similar assertions as she advanced in life, and even until his death, in 1821. He left her £100 per annum, and she now sought, on the ground of his *partial* insanity, to break the will.

When the first application was made to Sir John Nicholl, he explicitly stated that "no course of harsh treatment, no sudden bursts of violence, no display of unkind or even unnatural feelings *merely*, can avail in proof of the allegation; she can only prove it by making out a case of antipathy, clearly resolvable into mental perversion, and plainly evincing that the deceased was *insane* as to *her*, notwithstanding his general sanity."

His decision on the will occupies many pages. He inquires what is the true criterion or test of the presence of insanity, and in answer, deems it comprisable in a single term, viz., *delusion*—a delusion out of which the patient is incapable of being *permanently* reasoned. The term *partial* insanity is perfectly consonant with the law of England—a man is not mad on all subjects.

In addition to the circumstances mentioned above, as to the

* American Journal Medical Sciences, N. S., vol. ix. p. 508, condensed from Curties' Reports.

delusion of Mr. Stott against his child, it was proved by many witnesses that, even in early age, the burden of his conversation was her depravity and profligacy; and this went on from year to year, progressively increasing. His treatment of her was harsh to an extreme; he burst into a rage whenever she appeared, and could not bear the sight of her. She never sat down to table with him; was compelled to do the most menial work; and was denied everything, except the most common articles of dress. He stripped her naked and flogged her, and then rubbed her back with brine; and even when a woman grown, of seventeen up to twenty-one, would knock her down and strike her with a whip. She fled from these cruelties, and received, through the assistance of her friends, a situation in a school, where she was fitted for a governess. The clergyman of the parish, to whom Mr. Stott had complained of his daughter, became acquainted with her, and was surprised to find her far different from what had been represented. Fruitless efforts were made by him and her to produce a reconciliation, but he states that the mere sight of her appeared to excite the father, and he did not deem it safe to leave *her* in the house. "The deceased's state of mind was clearly and essentially different from that of a merely wicked man or of one under the influence of a prejudice, however strong." It was a complete delusion, which he had no power of resisting, and which was liable to, and did, go frightful lengths, in the absence of temporary external restraints.

It appeared in testimony that Stott had required his daughter to write down her thoughts for his inspection.

Other circumstances were proved, indicative of insanity on several subjects—such as his conduct to his first wife, his blasphemy while reading the Bible, and his extraordinary prayers.

He was a medical electrician, and conceived himself endowed with supernatural powers in the use of his apparatus. He had also imbibed an idea of the feasibility of delivering pregnant females by means of this agent, and actually proposed to a neighboring baker to try the experiment on his wife.

The will was declared void.*

In a recent case, the testator had been a fellow of Queen's College, Oxford, and for the last twenty years of his life rector of a living belonging to that college. He was always eccentric in his habits, and of late years had been very retired. In consequence of being taken very ill, and two of his servants at the same time, with vomiting and purging, he believed that an attempt had been made to poison him. On the advice of his solicitor and physician, who then thought that he had rational grounds for his suspicions, an investigation was made, but the gentlemen who conducted it were satisfied that there were none. The testator, however, remained in the belief that the eggs, milk, and butter sent to him by Harrison, his nephew-in-law, and his church-warden, were poisoned, and this continued to his death.

The will was all in the testator's handwriting, without erasure or alteration, regularly attested by two clergymen, who, although aware of his opinion respecting poisoning, unhesitatingly swore to their belief of his perfect mind. The solicitor and physician gave similar testimony. His property was all bequeathed to Queen's College, in trust for the poor of the parish where he resided, and it appeared on the trial that he expressed an intention of doing this long before he had the notion of poison.

The testamentary papers were opposed by the next of kin, on the ground that they were prepared and executed when the testator was impressed with the belief of poisoning, and while he was of unsound mind and under mental delusion. Sir John Nicholl said that, "at all events, it was a case of *monomania*, for upon every other subject, from the time in question to his death, the deceased acted as a person of sound mind, as much as he had ever been; he managed his house, his property, and his farm, granted leases, received tithes, kept accounts, recognized his will, held rational conversation, and did church duty. A *monomania*, to affect such an instrument, under such circumstances, should be clear in

* Dew v. Clark, in 1 Addams, p. 279; 2 Addams, p. 102; 3 Addams, p. 79.

point of existence and decided in character, beyond all doubt. That the deceased thought and believed that an attempt had been made to poison him, seemed to be established; but was it proved that his opinion in that respect was a mere morbid insane delusion, rendering him intestable? The question was not whether the attempt to poison was really made, but whether he had grounds for suspecting it? or whether, as pleaded, 'the deceased had no rational grounds whatever for his belief?'" The court pronounced in favor of the will.*

The following case was adjudicated in Kentucky, in 1822: George Moore made his will on the 11th of April, 1822. He was sick and low, but in his right mind, and indeed more so than the witness had seen him for some time. About twenty-four years previous to his death he had been seized with a dangerous fever, from which he, unexpectedly to all, recovered. Some years afterwards he indulged in habits of intoxication, and these continued to the period of his dissolution. When not under the influence of liquor he was feeble and inactive; and it was precisely in this situation that he executed his will, evincing intelligence sufficient, in the opinion of both of his physicians and the attesting witnesses. The court, therefore, observed that they would have no hesitation in admitting the instrument to record, were it not for the following circumstances:—

The testator was a bachelor, but had two or three brothers who resided within the State. He owned a female slave, his mistress, and who possessed considerable influence over him. During his severe illness, many years previous, he was completely deranged, talked much of his immense wealth, and then conceived an antipathy to his brothers, contending that they designed to destroy or injure him, although they attended him constantly in his illness. This antipathy continued, with a single exception, when he made a will in their favor, (afterwards canceled,) until his death. When inquired of by one of the witnesses, why he disinherited his brothers, he became

* Haggard's Ecclesiastical Reports, vol. iii. p. 527. Shelford, p. 301. Fulleck v. Allinson.

violently irritated, and declared that they had endeavored to get his estate before his death. "He cannot, therefore," said the court, in their opinion, "be accounted a free agent in making his will, so far as his relatives are concerned, although free as to the rest of the world. But however free he may have been as to other objects, the conclusion is irresistible, that this peculiar defect of intellect did influence his acts in making his will, and for this cause it ought not to be sustained. It is not only this groundless hatred or malice to his brothers that ought to affect his will, but also his fears of them, which he expressed during his last illness, conceiving that they were attempting to get away his estate before his death, or that they were lying in wait to shoot him, while on other subjects he spoke rationally. All which are strong evidences of a derangement in one department of his mind, unaccountable, indeed, but directly influencing and operating upon the act which is now claimed as the final disposition of the estate."

The counsel for the appellants presented a petition (in writing) for a rehearing, in which the objections to the doctrine of partial insanity are considered. It is well worthy of perusal, and its main object is to show that what by many are deemed *delusions of the head*, may originate from *depravity of the heart*. The court, however, overruled the petition.*

Esquirol relates the following case as occurring in France: A respectable individual, forty-four years old, of large property, and holding a very lucrative office, became exceedingly discontented with the division of some property made by his parents during their lifetime. He was suspicious of all, but particularly of his brothers and sisters. This soon extended to his domestics, whom he believed in a plot against him. He supposed himself surrounded by assassins, and went constantly armed. An anonymous letter completed his distracted state. In this condition he made his will, in which he stated his apprehension of being murdered by his relatives, domestics, etc., and left his property to several persons whom he deemed his friends. Shortly after, however, he revoked several legacies,

* Littel's Kentucky Reports, vol. i. p. 371. Johnson v. Moore's heirs.

because the individuals had proved traitors to him, revealing his secrets, and becoming accomplices of his relatives. In six days after signing a third codicil, he hung himself, and in his room a letter was found, saying that in consequence of discovering new plots, he had resolved to destroy himself. Esquirol was consulted on the validity of the will. This change had gone on for three years, and was literally a *panophobia*—a fear of everybody—although, on other subjects, he had appeared rational. He did not doubt the insanity of the testator.*

Eccentricity. A testator himself drew up his will, and by it left a large fortune to his housekeeper. "The relatives disputed it on the ground that it bore intrinsic evidence of his not having been in a sane state of mind. After having bequeathed his property, the deceased directed that his executors should cause some part of his bowels to be converted into fiddle-strings, that others should be sublimed into smelling salts, and that the remainder of his body should be vitrified into lenses for optical purposes. He further added in a letter, 'the world may think this to be done in a spirit of singularity or whim;' but he expressed himself as having a mortal aversion to funeral pomp, and wished his body to be converted to purposes useful to mankind. Sir Herbert Jenner, in giving judgment, held that insanity was not proved; the facts merely amounted to eccentricity, and on this ground he pronounced for the validity of the will. It was proved that the deceased had conducted his affairs with great shrewdness and ability; that he not only did not labor under imbecility of mind, but that he was treated as a person of indisputable capacity by those with whom he had to deal. The best rule to guide the court, the judge remarked, was the conduct of parties toward the deceased; and the acts of his relatives evinced no distrust of his sanity or capacity."

* Annales d'Hygiène, vol. iii. p. 370. A similar case, where long-continued jealousy led to suicide, was tried at Liege in 1802; and the will made under the influence of this passion was annulled. (Causes Célèbres par Mejan, vol. xiii. p. 427.)

In this instance, the testator had been noted during life for his eccentric habits, and had actually consulted a physician upon the possibility of his body being devoted to chemical experiments after death.*

As to the mode of proving whether an individual is competent to make a will, this, of course, must be according to the ordinary rules of evidence. A testator is always deemed sane until the contrary is proved; and the *onus probandi*, as to his mental incapacity, lies on the party who alleges his insanity. But if a mental derangement has been proved, it is then incumbent on the devisee to show a lucid interval, or the sanity of the testator at the time of executing the will.†

It may sometimes although not frequently happen, that a will is required to be made by a person in apparently his last illness, and the opinion of the physician as to his capacity is asked. The following directions, with others already given, are here worthy of attention: Avoid putting leading questions, namely, those which suggest the answer yes or no. Be not satisfied with having the instrument read over to him, and obtaining the assent of the dying man, but require him to dictate the provisions of the document. "If he does this accurately, there is no doubt of his having a disposing mind." In the other case he may have assented, although he did not understand the full purport of the instrument.‡

An extraordinary case was tried in 1762, in the king's bench, in England, where the three surviving witnesses to the testator's will, and the two surviving ones to a codicil made four years subsequent to the will, and a dozen servants of the testator, all unanimously swore him to be utterly incapable of making a will or transacting any other business, at the time

* British and Foreign Med. Review, vol. x. p. 138. *Morgan v. Boys*.

† Johnson's Reports, vol. v. p. 144. *Jackson ex dem. Van Duzen and others v. Van Duzen*. In a case, however, where the attesting witnesses were disinterested medical men, and gave evidence strongly in favor of the testator's sanity, the ecclesiastical court would not set aside the will, on proof by interrogatories, without plea, that the deceased, seventeen years before, had been under an insane delusion. (*Haggard's Ecclesiastical Reports*, vol. iii. p. 273. *Kemble and Smales v. Church*.)

‡ British and Foreign Med. Review, vol. x. p. 147.

of making the supposed will and codicil, or at any intermediate time. To encounter this evidence, the counsel for the plaintiff examined several of the nobility and principal gentry of the County of Worcester, who frequently and familiarly conversed with the testator during that whole period, and some on the day whereon the will was made; and also two eminent physicians who occasionally attended him, and who all strongly deposed to the entire sanity, and more than ordinary vigor of the testator. Other testimony, corroborative of this, was adduced. The validity of the will was established, and, subsequently, several of the defendant's witnesses were tried and convicted of perjury.*

VI. *Of the deaf and dumb; their capacity and the morality of their actions.*

On this subject little can be found in our jurisprudence; but the general rule, deducible from adjudications, both in civil and criminal cases, is, that they must be judged of according to the intelligence and knowledge they are known to possess. A deaf and dumb person, educated at the present day under Sicard or Braidwood, or in one of the establishments of our own country, may certainly be deemed to understand the morality of actions much better than one who has never had that advantage; and he accordingly would more readily be put in possession of his civil rights, or be punished for any offence against the laws.†

* Sir William Blackstone's Reports, vol. i. p. 365. *Lowe v. Joliffe*. There is a curious case related in Scotch law books, of a man obtaining the signature of a deed from his wife, while she was in extreme labor-pains. The judges decided that she was not at that time in the full exercise of her reasonable faculties, and revoked the deed. This happened in 1686.

† "A person born *deaf, dumb, and blind*, is looked upon by the law as in the same state as an idiot, he being supposed incapable of any understanding, as wanting all those senses which furnish the human mind with ideas." But if he *grow* deaf, dumb, and blind, not being *born* so, he is deemed *non compos mentis*; and the same rule applies to him as to other persons supposed to be lunatics. (Blackstone, vol. i. p. 304.) See also Dyer's Reports, 56 a, *Yong v. Sant*.

The Code of Justinian appears to have considered the deaf and dumb as

A person born deaf and dumb is competent as a witness, provided he evinces sufficient understanding. This was decided in the following case:—

At the Old Bailey January sessions, in 1786, on the trial of William Bartlett for simple grand larceny, John Ruston, a man deaf and dumb from his birth, was produced as a witness on the part of the crown. Martha Ruston, his sister, being examined on the *voir dire*, it appeared that she and her brother had been for a series of years enabled to understand each other by means of certain arbitrary signs and motions, which time and necessity had invented between them. She acknowledged that these signs and motions were not significant of letters, syllables, words, or sentences, but were expressive of general propositions and entire conceptions of the mind, and the subjects of their conversation had in general been confined to the domestic concerns and familiar occurrences of life. She believed, however, that her brother had a perfect knowledge of the tenets of Christianity; and was certain that she could communicate to him true notions of the moral and religious nature of an oath, and of the temporal dangers of perjury.

It was objected by the prisoner's counsel, that although these modes of conveying intelligence might be capable of impressing the mind with some simple ideas of the existence of a God, and of a future state of rewards and punishments, yet they were utterly incapable of communicating any perfect notions of the vast and complicated system of the Christian religion, and thence the witness could not with propriety be sworn upon the holy gospels. The difficulty of arraigning a man for perjury, whom the law presumes to be an idiot, and

incapable of receiving instruction, and unworthy of having civil rights; as it declares that they shall not have the power to make any will or disposition of property, or to free a slave. (London Journal of Education, vol. iii. p. 204.) "The disabilities which the Roman law and the older codes of every European jurisprudence imposed on the deaf and dumb were all founded on the principle, *surdus natus est mutus et plane indisciplinabilis*, as Molinæus has it." (Edinburgh Review, vol. lxi. p. 219, American edition.)

who is consequently incapable of being instructed in the nature of the proceedings against him, was also urged against the admissibility of the witness.

But the court overruled the objection, and John Ruston was sworn to depose "the truth;" and Martha Ruston, "well and truly to interpret to John Ruston, a witness here produced in behalf of the king against William Bartlett, now a prisoner at the bar, the questions and demands made by the court to the said John Ruston, and his answers made to them." The prisoner was found guilty, and received sentence of transportation for seven years.*

In the case of *Morrison v. Lennard*, the witness had been born deaf and dumb. An interpreter was sworn who put questions to him by signs made with his fingers, and was answered in the same mode. The interpreter said that he spelt every word to the witness completely. It appeared that the witness was able to write.

Chief Justice Best observed: "I have been doubting whether, as this lad can write, we ought not to make him write his answers. We are bound to adopt the best mode. I should certainly receive the present mode of interpreting even in a capital case, but I think when the witness can write, that is a more certain mode."†

In Scotland, the deaf and dumb may be witnesses, if of sufficient intelligence to understand the nature of an oath. Thus the chief witness in a case of rape was deaf and dumb, but had been instructed, and her intelligence proved by an examination of her teachers.‡

But in the case of *James Whyte*, charged in April, 1842, at the circuit court of justiciary held at Stirling, in Scotland, with robbery, the principal witness, James Shaw, was called, and one of the crown witnesses named M'Farlane, having been sworn to act as interpreter, M'Farlane deposed that he had known Shaw from his earliest years, had been on intimate

* Phillip's Law of Evidence, p. 14. Leach's Cases in Crown Law, p. 455.

† 3 Carrington and Payne, p. 127. The Hon. John C. Spencer has kindly referred me to this case.

‡ Alison's Practice of Criminal Law of Scotland, p. 436.

footing with him, and was on that account able to communicate with him better than any other person whom he knew; that Shaw was not born deaf, but became so from disease, about the age of seven years; that he had been stone deaf ever since, and had lost, in a great measure, the faculty of speech; that he could talk a little, but so very inarticulately that none but those who were in the habit of communicating with him could understand his meaning; that the mode of communicating with him was partly by signs and partly by the motion of the lips. The interpreter having been desired by the court to repeat the oath to the witness, after communicating with him, stated that though he believed Shaw to be naturally honest and trustworthy, he found it impossible to convey to his mind any idea of an oath; that the subject of their communications had always been about ordinary country matters, and that as Shaw had received no education whatever, it was his decided opinion that he could not comprehend the obligation of speaking the truth.

In these circumstances the court held that the witness could not be sworn, and he was accordingly rejected.*

In France, if the accused cannot write, some person intimate with him, is to be appointed his interpreter. So also with a deaf and dumb witness. If they can write, the inquiry is to be conducted by question and answer.†

The deaf and dumb are also allowed to obtain possession of their real estate, if they show sufficient understanding. A female so situated, on attaining the age of twenty-one, applied to Lord Hardwicke (1754) for this purpose. Having put questions to the party in writing, and she having given sensible answers thereto in writing, the same was ordered.‡

As to the marriage of the deaf and dumb, I find the following occurring before the supreme tribunal at Berne: It appeared that Anne Luthi, the person in question, an ex-

* London and Edinburgh Monthly Journal of Medicine, vol. iii. p. 486.

† Code d'Instruction Criminelle, art. 333.

‡ *Dickenson v. Blisset*, 1 Dickens' Reports, p. 268. See also on this subject generally, Johnson's Chancery Reports, vol. iv. p. 441, *Brower v. Fisher*.

ceedingly pretty young woman of twenty-five, and possessing a fortune of 30,000 francs, had been placed in a deaf and dumb institution near Berne, where she had received an excellent education. On her return home to Rohrbach, her hand was demanded by a M. Brossard, who had been deaf from fourteen years of age, and had been employed for some years as a teacher in the institution. He was thirty-two years of age, bore an excellent character, and had saved some money out of his salary. As art. 31 of the civil code of Berne enacts that deaf and dumb persons could not marry without having first obtained permission from the tribunal, Mdle. Luthi made application in the usual manner, but was opposed by her relations and by the commune in which she lived. The grounds of opposition were that Brossard had taken an undue advantage of his position in the institution, to captivate the young girl's affections; that it was to be feared that the children would labor under the infirmity of the parents; and that the latter could not, in case they were like other children, give them the cares required for a good moral education. The objections relating to the children being proved by the testimony of medical men to be perfectly chimerical, and letters being produced from the female herself admirably written, breathing the utmost affection for Brossard, the court decided that as from their infirmity being mutual, and their consequent habit of interchanging ideas by signs, they were well suited to each other, and there were good grounds for expecting that the female would be happier with Brossard than with any other person, no just grounds for opposition existed, and permission must accordingly be given for the marriage.*

As to criminal cases, the following may be cited: A deaf and dumb person was indicted for larceny in Massachusetts, and being sent to the bar for his arraignment, the solicitor-general suggested to the court that he was deaf and dumb, but that the evidence would prove him of sufficient capacity to be

* Athenæum, July 30, 1842, p. 686.

a proper subject for a criminal prosecution, and that he had formerly been convicted of larceny, and he moved that one Nelson, then in court, and an acquaintance of the prisoner, should be sworn to interpret the indictment to him, as it should be read by the clerk. The indictment was accordingly read by a sentence at a time, and Nelson, having been sworn, explained its purport to him, making signs with his fingers. After which the court ordered the trial to proceed, as on a plea of not guilty.*

A very curious case came before the court of justiciary in Scotland, on the 1st of July, 1807. The prisoner, Jean Campbell, alias Bruce, was charged with murdering her child by throwing it over the old bridge at Glasgow. Mr. McNeil, her counsel, stated an objection against her going to trial, on the ground of her being deaf and dumb from her infancy, and that he was totally unable to get any information from her to conduct her defence.

Mr. Drummond, counsel for the crown, now gave in a minute, stating that he was satisfied of the prisoner's being deaf and dumb from her infancy, but he offered to prove that she was capable of distinguishing between right and wrong, and was sensible that punishment followed the commission of crime.

He then called the following witnesses:—

Thos. Sibbald, keeper of the jail. Prisoner has been two months in the jail of Edinburgh; conducted herself rationally; made signs to the turnkey of a certain description when

* Massachusetts Reports, vol. xiv. p. 207. *Commonwealth v. Timothy Hill*. A similar case occurred at the Old Bailey, in 1773. One Jones, being deaf and dumb, was indicted for stealing. A person, to whom he had been in the habit of communicating his ideas by signs, was sworn as an interpreter to him. The trial proceeded, and he was convicted. *King v. Jones*. (Leach's C. C. Cases, p. 120. See also *King v. Steel*, *ibid.*, p. 507.)

By the law of the State of Ohio, if a person stands mute, a jury is to try whether he is so by the act of God, and if they find this, he is to be remanded to prison, and not proceeded against until he recovers. The reviewer very properly asks, what is to be done with a person born deaf and dumb? (*American Quarterly Review*, vol. x. p. 46.)

she wanted anything, and when the articles were brought her she seemed satisfied; he has also seen her make signs to herself, as if taking something out of her breast and counting it with her hands; and that when she came first into prison, she clasped her hands together and made a sign as if something had fallen from her back, and seemed to indicate distress of mind; that he had seen her weep while in prison; and upon certain kinds of food having been brought to her, he had observed her express herself as if satisfied; and when she was weeping, as before mentioned, she made the same signals as if something had fallen from her back.

Robert Kinniburgh, teacher of the Deaf and Dumb Institution, deposed that he had seen the prisoner once in the jail at Glasgow, and repeatedly in the jail of Edinburgh; that he has had communication with her by means of signs; in general he understood her, but in particular instances he did not; that she, by her signs, communicated to him the circumstances which took place relative to her child; that the death of her child was altogether accidental, and that, when it happened, she was intoxicated; that she communicated to him that, upon that occasion, the child was upon her back, covered with her petticoat and duffle cloak; and, as he understood her, she had held them together upon her breast with her hand, while she rested the child upon the parapet of the bridge, over which the child fell while she was in the act of putting her hand in her breast, where she had money, and which she was afraid was lost, and by so putting her hand into her breast he understood she had lost hold of her child, at which time the child was asleep, and had then fallen over the bridge. She communicated to the witness that, before the act, she had that day drank eight glasses of spirits. That his communications with the prisoner chiefly turned upon the accident, and that she seemed to understand him about as much as he understood her, that is, in general; but upon some particular occasions she did not; that she can make the initial letters of her name, but inverts them, C. J.; and when she does so, points to herself, which leads him to think that she understands them; that she makes two or three other letters, but is not sure if they

denote her children or not. He understood from her that she had three children, and that the one the accident happened to was one of them; that he rather suspected that she was not married, as the children were to different individuals; that, as far as the communications could take place betwixt him and the prisoner, she is a woman of strong powers of mind; that nothing appears to have been wanting, humanly speaking, to have saved her from the pitch of depravity she appears to have attained, but some hand to have opened for her the treasures of knowledge in proper time; that he conceives that the prisoner must be possessed of the power of conscience in a certain degree; and that she seems a woman of strong natural affection toward her children, as he was informed by persons at Glasgow; and which she manifested by the indignant denial of the charges of having willfully killed her child, and her immediate assertion that it lost its life by accident; as well as from observations he has made as to the state of mind of other uneducated deaf and dumb persons, and particularly in one instance, in the report of the institution for 1815, page 54; he is of opinion that, if not blunted by intoxication, these feelings must have convinced her of the criminality of bereaving her child of life. That, in his communications with the prisoner, he was satisfied she was sensible of the criminality of theft, but he cannot say anything as to the abstract crime of murder in general; that she communicated to the witness her indignation at the fathers of the children for the way they used her, and one of whom she has sometimes represented as her husband; that sometimes he could not understand whether she understood the ceremony of marriage or not, or sometimes wished to evade the questions, or did not understand them; that he has seen her use the form of a ring as a token of marriage; and she made signs that that had been taken away by the man she called her husband—that is to say, that the marriage had been dissolved by him, and he had taken another wife. That from what he saw of her at Glasgow, as well as what he observed in the jail of Edinburgh, he is convinced she was aware that she was to be brought at Glasgow before a court of justice; and that he was confirmed in this from his

having a conversation with a woman there, who seemed to understand her signs perfectly well in general, and who mentioned to him that she had made signs to her with regard to the dress of the judges; that he understood that she connected the death of her child with her appearance in court. (Being interrogated by the court whether he is of opinion that the prisoner could be made to understand the question, whether she is guilty or not guilty of the crime of which she is accused?) answers, that from the way in which he put it, by asking her by signs, whether she threw her child over the bridge or not? he thinks she could plead not guilty by signs, as she has always communicated to him, and this is the only way in which he can so put the question to her; but he has no idea, abstractly speaking, that she knows what a trial is, but that she knows she is brought into court about her child. That she has no idea of religion, although he has seen her point as if to a Supreme Being above; and communicates merely by natural signs, but not upon any system; that he could not obtain from her information where her supposed husband is, or what was his name; neither could she communicate by natural signs any particular place, unless he had been at that place with her before, or had some mark for it; and that she could not communicate to him about any person unless there was some sign by which he could bring that individual to her recollection, or had been seen together in certain circumstances; that, in referring to the accident, the prisoner communicates that there was a baker's boy near her who heard the child plunge into the water and gave the alarm, and that upon this she laid her hands upon the ears of her little boy near her, but for what purpose he cannot say, unless to prevent him from crying out.

Here the court expressed a wish to see Mr. Kinniburgh put the question to the witness in open court, and she answered by signs, in the same manner as he had described.

The Lord Justice Clerk thanked Mr. Kinniburgh for his attention, and the assistance the court had derived from his professional skill.

Dr. William Farquharson stated that he twice visited the

prisoner in the jail of Edinburgh; on the first occasion alone, and on the second, along with Mr. Kinniburgh and another gentleman; that she fully satisfied him that she was not feigning to be deaf and dumb; and that when he first saw her, she did not seem to understand his signs so well as after being visited by Mr. Kinniburgh, and the witness made that observation to Mr. Kinniburgh himself; that he had communications the first time with her as to the loss of her child, and used signs in regard to a child then in prison, as if throwing it away; upon which she made the same signs as to the accident, as she has now done to Mr. Kinniburgh in presence of the court; that she appeared to the witness to know as little of the distinction between right and wrong as a child six months old; and that she did not appear to be conscious of having done anything wrong whatever in regard to the child; that in giving the above opinion he has formed it from the facts of the prisoner having been both deaf and dumb, and having received no education whatever.

John Wood, Esq., auditor of excise, (who is deaf, and partially dumb,) gave in a written statement upon oath, mentioning that he had visited the prisoner in prison, and was of opinion that she was altogether incapable of pleading guilty or not guilty; that she stated the circumstances by signs, in the same manner she had done to the court, and seemed to be sensible that punishment would follow the commission of a crime.

The court were unanimously of opinion that this novel and important question, of which no precedent appeared in the law of this country, deserved grave consideration, and every information the counsel on each side could procure and furnish. The court then ordered informations on each side to be prepared and printed.

At a subsequent period the judges delivered their opinion, as follows:—

“Lord Hermand was of opinion that the panel (prisoner) was not a fit object of trial. She was deaf and dumb from her infancy; had had no instruction whatever; was unable to give information to her counsel—to communicate the names of her exculpatory witnesses, if she had any; and was unable

to plead to the indictment in any way whatever, except by certain signs, which he considered, in point of law, to be no pleading whatever.

"Lords Justices Clerk, Gillies, Pitmilly, and Reston were of a different opinion. From the evidence of Mr. Kinniburgh and Mr. Wood, they were of opinion that the panel was *doli capax quoad* the actual crime she was charged with. It was true that this was a new case in Scotland, but in England a case of a similar nature had occurred. One Jones was arraigned at the Old Bailey, in 1773, for stealing five guineas. He appeared to be deaf and dumb. A jury was impaneled to try whether he willfully stood mute, or from the visitation of God; they returned a verdict 'from the visitation of God;' and it having appeared that the prisoner had been in the use of holding conversation, by means of signs, with a woman of the name of Fanny Lazarus, she was sworn an interpreter. He was tried, convicted, and transported. In the present case, the panel had described to Mr. Kinniburgh most minutely the manner in which the accident had happened to her child; and, from the indignant way in which she rejected the assertion that she had thrown it over the bridge, it was evident she was sensible that to murder it was a crime. It was also observed by Lord Reston that it would be an act of justice toward the panel herself to bring her to trial; for if the court found she was a perfect *non-entity*, and could not be tried for a crime, it followed, as a natural consequence, that the unhappy woman would be confined for life; whereas, if she was brought to trial, and it turned out that the accident occurred in the way she described it, she would immediately be set at liberty. The court found her a fit object for trial."*

* The first part of this case I have taken from an English newspaper, and the opinion of the judges, from Smith's Forensic Medicine, p. 430. "The sequel of this is worthy of record. The woman was brought to the bar, and the indictment read in the usual form; the question was then put, Guilty or not? Mr. McNeil, the counsel for the prisoner, then rose and stated that he could not allow his client to plead to the indictment, until it was explained to her that she was at liberty to plead guilty or not. Upon it being found that this could not be done, the case was dropped, and she was dismissed from the bar *simpliciter*. Thus, though it is established that

A case quite similar occurred at the York assizes, in England, in 1831. The prisoner, a girl deaf and dumb, was indicted for the murder of her infant bastard child. Through an interpreter she pleaded not guilty. She was then asked, through the interpreter, if she desired to challenge any of the jurors. The interpreter informed the court that he could not make her understand what was meant. "I cannot," he said, "make her understand anything she has not seen before. I *can* make her understand what she was brought here for, but I cannot make her understand for what purpose she now stands in court." The judge (Parke) impaneled a jury, to try whether she was sane or not, and testimony to the above effect having been given by two witnesses, the jury were directed to inquire whether the prisoner is sane, not whether she is at this moment laboring under lunacy, but whether she has at this time sufficient reason to understand the nature of

a deaf mute is *doli capax*, no means have yet been discovered of bringing him to trial.

"Another interesting discussion took place last winter in the high court of judicature, as to whether or not a deaf mute was capable of giving evidence. A rape had been committed on a deaf and dumb girl, and her evidence was objected to by the counsel for the prisoner, who argued that though it was admitted to the fullest extent that she had a perfect idea of the existence of a Supreme Being and a future state, and though she might be perfectly convinced of the obligation under which she lay to speak the truth, yet every one had as perfect a knowledge at least of these facts and obligations as she could possibly have, yet their testimony went for nothing unless confirmed by an oath; and as it was obvious that she could not give an oath, her testimony must go for nothing." (DUNLOP.)

The following extraordinary and *untrue* statement is made in the Foreign Quarterly Review for July, 1844. (Vol. xxxiii. p. 360.)

"It was under the Restoration also, and in 1826, in the cases of Nadeau and Fillerou, both deaf and dumb prisoners, that Charles Ledru (in France) first raised the question as to how far the penal law was applicable to a deaf and dumb person without instruction. This medico-legal question was treated by M. Ledru with great general ability and enlarged physiological views. Both prisoners were acquitted. Mr. Cockburn did not disdain to use many of the arguments of M. Ledru in his able and ingenious defence of Daniel McNaughton, at the Central Criminal Court."

It is quite sufficient to add that the subject in question was discussed as above, with great ability, before the Scotch courts in 1807.

this proceeding, so as to be able to conduct her defence with discretion. The jury returned a verdict that she was insane.*

At the court of assizes of L'Ardeche, on the 25th of August, 1846, Lewis Chavanon, aged between fifty-five and sixty years, was arraigned for murder. His countenance was remarkably expressive, and he signified by gestures to the court that he was deaf and dumb. A near neighbor was sworn as interpreter.

It appeared in evidence that Chavanon had been deaf and dumb from birth; that he is, notwithstanding, a man of intelligence, and of extremely violent temper and vindictive habits, so as to be feared by many. He appears particularly to have treasured enmity against all those who at any time had made purchases from his father.

A witness deposed that repeatedly Chavanon had threatened to shoot him, if he found him on land which he had purchased three years previous from the father, and these threats deterred him from further purchases.

M. Billon had purchased, about four years ago, from the father and brother of the criminal, a part of the house occupied by them. The entrance and stairs were to remain free to both. This sale encountered the intense displeasure of Chavanon, and his repeated threats induced Billon to resell to a person named Treille. The hatred was now transferred to the new purchaser.

On the 24th of May, Chavanon encountered Treille on the common stairs, and by shaking his fist and putting himself in the way, endeavored to prevent his passage up. Treille repelled him and caused him to stumble. On rising he drew a pistol from his pocket and fired it after Treille, inflicting a wound which caused immediate death.

The violent temper and malignity of the accused were proved even by his sister. It appeared also that he had for a long time threatened injury to Treille and to his wife, so that the latter scarcely dared to pass in and out of the door.

* Lewin's Crown Circuit Reports, p. 65. Case of Esther Dyson. *Rex v. Prichard*, (7 Carrington and Payne, p. 303,) is a precisely similar case, occurring in 1836; and here also the prisoner was found not capable of taking his trial. In this, as well as Dyson's case, the prisoners were ordered to be confined in prison during the king's pleasure.

The king's attorney urged his punishment, on the ground of his superior general intelligence. He was sentenced to ten years imprisonment and to pay a fine of 1000 francs to the widow and children.*

Sudden access of insanity. The following occurred recently at Paris. An engraver, after having spent twenty years on the engraving of a portrait, took the proofs to a publisher, who had agreed to purchase the plate. In the course of conversation, some disparaging observations were made on the work. The engraver rushed into an adjoining room, and dashed his head violently against a stone chimney-piece, producing severe injury to the head, on a recovery from which it was found that his reason was entirely gone.

It was long since remarked by the celebrated Pinel, that persons endowed with highly sensitive feelings, might, by any sudden or violent emotion, be immediately deprived of understanding. Thus an attack of insanity may be caused in a moment by extreme joy or terror. He gives the following curious instances:—

During the French revolution, an artilleryman proposed to the Council of Safety a new piece of artillery which he had invented, and which was to have the most deadly effects in war. A day was appointed for the trial of this invention at Meudor, and Robespierre wrote a letter to the inventor, and expressed his approbation of the invention in very flattering terms. The man to whom it was addressed became motionless on reading it, and he was soon after sent to the Bicêtre, in a state of complete dementia.

About the same time, two young men, brothers, entered the army, and during a bloody action one of them was killed by the side of his brother. The latter became instantly motionless like a statue, and lost his reason. He was conveyed to his father's house, and at the sight of him, a third son, owing to the shock produced by the death of one of his brothers and the insanity of the other, became also insane. They were for many years confined in the Bicêtre, under the care of Pinel.

* Gazette des Tribunaux, September 4, 1846.

There is a well-known case related by Mr. Travers, (*constitutional irritation*), of a young lady, who was found one morning in a state of complete dementia, playing with the fingers of a skeleton, which had been placed on her bed the night before.

Not long since there was reported the case of a naval officer, in the command of one of the ships lately forming the squadron off Cork. He suddenly rushed on deck, ordered the ship to be cleared for action, and the guns pointed and fired on the town. So little was insanity suspected, that his orders were about to be obeyed, when, fortunately, it was resolved to delay the execution until they were confirmed by his superior in command. It was found that this officer had been attacked with mania, the cause of which did not appear, but as it was not brought on by any sudden or violent emotion, it may have been, in this instance, long dormant.

The sudden occurrence of dementia, under the circumstances above mentioned, renders it difficult to suppose that this form of insanity is, in all cases, necessarily dependent on physical changes in the brain.*

There are several points connected with the subject of mental alienation which properly belong to MEDICAL POLICE. Of this nature are the general causes, and the possibility of their removal; the treatment the insane should receive, and the care that the government should bestow on their safe keeping.†

* London Medical Gazette, April, 1845, vol. xxxv. p. 378.

† There have been trials of deaf and dumb persons for robbery in Paris. They appear to have been uneducated, and were acquitted. (*Causes Célèbres du XIX. Siècle*, vol. iv. p. 193.) One of the cases is noticed in the *American Jurist*, vol. iii. p. 158. [See *American Journal of Insanity*, vol. xiii., October, 1856, for a most comprehensive and valuable article "On the Legal Rights and Responsibilities of the Deaf and Dumb," by Harvey P. Peet, LL.D., President of the New York Institution for the Deaf and Dumb.]

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